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ORIGINAL ARTICLES.

A CONDENSED TABULAR REPORT OF 178 CASES OF HEMORRHAGIC MALARIAL FEVER,

WITH SPECIAL REFERENCE TO THE INFLUENCE OF QUININE IN THE TREATMENT OF THE DISEASE.

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IN the issue of THE MEDICAL NEWS of 21st July last, I presented a "Tabular Report of 24 Cases of Hemorrhagic Malarial Fever" that had come under my observation. The analysis of these cases led me to the following conclusions:

1st. That the black race is less susceptible of the disease than the white man is, but is not *exempt*.

2d. That the susceptibility of the sexes is about equal—the greater number of cases occurring among males being due to greater exposure.

3d. That no particular age is protected, inherently.

4th. That quinine is not only not the only effective and reliable remedy as is now widely taught, believed, and practised, but that it is, on the contrary, an uncertain, and even a dangerous agent in this disease, and often seems to determine an unfavorable result.

Of these conclusions, the 1st, the 2d, and the 3d have not been contested, and I therefore regard them as accepted and dismiss them from consideration. But the 4th, which is incomparably the most important to the medical profession, to patients, to society, to the human race, is controverted. I expected this, indeed, it was one of the purposes of my report to call general attention to this important point, to challenge the routine and dangerous employment of the cinchona salts, now so extensively adopted in the treatment of hemorrhagic malarial fever, and to induce many physicians to devote more close attention to the subject, to make careful observations and minute reports of the different modes of treating the disease and of the results. That this purpose now promises to be accomplished, is indicated by a report of 33 cases made in the issue of THE MEDICAL NEWS for August 1st, by my eminent friend Dr. R. D. Webb, of Livingston, Ala., and by reports since sent me by some of the most accomplished and successful practitioners of Alabama, embracing men of opposite views and of diverse practice as regards the matter in dispute.

The question of the benefit or hurt done by quinine, in any of the doses or modes of administration now employed in hemorrhagic malarial fever, as indicated by its influence on the rates of recovery or of death, these rates being compared with the rates of recovery or of death in the same disease, under other modes of treatment, with like environments, adjuvants, or accessories, is, therefore, now singly and fairly before us; and the co-operative investigations, observations, and reports now being made promise a satisfactory answer. There is no doubt that the fever under consideration, like other diseases, varies at different times and places, by being more pernicious or less pernicious, and that the physicians who treat it, like other physicians, vary, by being some more judicious, and others less judicious, in applying any mode of treatment. The reports of the same men, or of different men with the same views, or with different views, may also be expected to vary reasonably, according to time, place, and circumstances. But large aggregates will not fail to give fair averages, and a correct analysis of accumulated and various reports may safely be trusted to reveal the true influence of quinine on the death-rate in hemorrhagic malarial fever. Indeed, the greater the variety and diversity of circumstances and contingencies, and the more numerous the perturbing and modifying influences under which facts are observed, the more authoritative will be the generalization derived therefrom; and if the general voice of observations made by various styles of reliable men, and under the widest reasonable range of surroundings, complications, coincidences, and antagonisms, proclaims, in loud, clear, unmistakable tone, the law, that quinine in hemorrhagic malarial fever is "a savor of life unto life," or, contrariwise, that it is "a savior of death unto death," how supreme and authoritative must that law be to be thus plainly thundered forth from the midst of sources of so much apparent uncertainty and confusion? The voice of Nature is the voice of God.

The object of this paper is simply to *reach* and *establish facts*. It is not intended to ascertain or to explain how quinine hurts, or how it benefits, in the fever now under consideration, but merely whether it hurts or benefits. This is the practical matter before us. The *mode of action* of quinine is altogether a different thing, and will be in order only after the *action itself* shall have been definitely ascertained.

Having said what seemed to me necessary for the clear understanding of what is to follow, I now present a table of 178 cases of hemorrhagic malarial fever, made up of

25 cases seen by myself, 24 of which were before reported.
33 reported by Dr. Webb, of Livingston, Ala.
22 reported by Dr. Saml. Perry, of Marion, Ala.
46 reported by Dr. Jackson, of Summerfield.
11 reported by Dr. Webb, of Greene Co., Ala.
41 reported by Dr. Minor, of Greene Co., Ala.

Of the six reporters, Drs. R. D. Webb, Samuel Perry, and H. Y. Webb are understood to be of

those who regard quinine in the disease with favor, while Drs. P. B. Minor, R. D. Jackson, and myself are of one mind in opposition to quinine.

Synopsis of 178 Cases of Hemorrhagic Malarial Fever, showing the Influence of Quinine on the Death-rate.

Reporter.	No. of Cases.	Recovered.	Died.	Quinine Taken.	Quinine not Taken.	Recovered with quinine.	Recovered without quinine.	Died with quinine.	Died without quinine.
Dr. P. B. Minor,	41	32	9	8	33	2	30	6	3
Dr. H. Y. Webb,	11	6	5	10	1	6	0	4	1
Dr. R. D. Jackson,	46	38	8	2	44	0	38	2	6
Dr. Saml. Perry,	22	13	9	20	2	11	2	9	0
Dr. E. D. McDaniel,	18	13	5	12	6	7	6	5	0
	7	1	6	7	0	1	0	6	0
Dr. R. D. Webb,	24	21	3	23	1	21	0	2	1
	9	2	7	3	6	2	0	1	6
Total,	178	126	52	85	93	50	76	35	17

Of these 178 cases:
126, or 71 per cent., recovered;
52, or 29 per cent., died;
85, or 48 per cent., took quinine;
93, or 52 per cent., did not take quinine.
Of the 85 cases with quinine:
50, or 59 per cent., recovered;
35, or 41 per cent., died.
Of the 93 cases without quinine:
76, or 82 per cent., recovered;
16, or 18 per cent., died.

Thus the death-rate in the cases with quinine is 23 per cent. heavier than in those without quinine, an excess greater than the entire death-rate in the cases without quinine. Taking these rates as a basis, if the whole 178 cases had been treated with quinine, there would have been lost 21 lives more than actually were lost under the divided treatment, and 41 more than would have been lost had all been treated without quinine. And on the same basis, if the whole 178 cases had been treated without quinine, there would have been saved 20 lives more than were saved under the divided treatment, and 41 more than would have been saved if quinine had been used in all.

A STATEMENT OF 41 CASES OF HEMORRHAGIC MALARIAL FEVER,

OCCURRING BETWEEN THE YEARS 1865 AND 1883, INCLUSIVE.

BY P. B. MINOR, M.D.,
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THE accompanying tabulated statement is offered only as a record of facts, and from which the profession can draw its own inferences. The author has so frequently seen the hemorrhage from the kidneys reproduced by the administration of quinine, and all the bad symptoms aggravated thereby, that he has long since abandoned its use *in toto* in this disease. It is hard for the practitioner of the South to look upon any disease of malarial origin and not fly to the old stand-by—quinine—for its relief; but this is undoubtedly a disease in which (in the words of Dr. E. D. McDaniel, of Ala.) "quinine is at best a very uncertain and dangerous remedy, except in very discreet hands."

"By its fruits shall the tree be known." Let those of the profession who have had a large experience with this disease come forward and state the results, with and without the quinine treatment.

Case.	Approximate Age.	Color.		Sex.		Result.		Quinine.		Attack.			Recovered.		Died.	
		White.	Black.	Male.	Female.	Recovered.	Died.	Taken.	Not taken.	Primary.	Secondary.	Relapsed.	With quinine.	Without quinine.	With quinine.	Without quinine.
1	6	1			1		1	1		1					1	
2	15	1		1		1			1	1				1		
3	8	1		1			1	1		1					1	
4	6	1			1		1		1	1						1
5	58	1		1		1			1	1				1		
6	18	1		1		1			1	1				1		
7	8	1			1		1		1	1						1
8	18	1			1	1			1	1		1		1		
9	21	1		1		1			1	1				1		
10	25	1		1			1		1		1					1
11	28	1		1		1			1		1			1		
12	17	1			1	1			1	1				1		
13	24	1			1	1			1	1				1		
14	25	1			1	1			1					1		
15	26	1		1		1			1	1				1		
16	27	1		1		1			1		1	1		1		
17	23	1			1	1			1	1				1		
18	12	1		1		1			1	1				1		
19	25	1		1		1			1		1			1		
20	18	1			1	1			1	1				1		
21	14	1			1	1			1	1				1		
22	30	1			1	1			1					1		
23	29	1			1		1	1		1					1	
24	32	1		1		1			1		1			1		
25	17	1		1		1			1	1				1		
26	15	1			1	1			1	1				1	1	
27	50	1		1			1	1								
28	34	1		1		1			1	1				1		
29	8	1			1	1			1	1				1		
30	17	1		1		1			1		1	1		1		
31	40	1		1		1			1		1			1		
32	14	1		1		1			1	1				1		
33	28		1	1		1			1	1				1		
34	32	1			1	1			1	1				1		
35	30		1		1	1			1	1				1		
36	36		1	1		1			1	1				1		
37	7	1			1	1			1	1				1		
38	50	1		1			1	1		1					1	
39	28	1		1			1	1		1					1	
40	25	1		1		1		1		1			1			
41	42	1		1		1		1		1			1			
41		38	3	24	17	32	9	8	33	31	7	3	2	30	6	3

HISTORICAL NOTES ON SYPHILIS.

BY R. L. MACDONNELL, M.D.,
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IT is generally thought that syphilis made its appearance in Europe in 1494. Guaiacum and mercury were soon employed for its cure. The former was first recommended as a specific by Glanfield

at the beginning of the sixteenth century. The Chevalier Ulric de Hutton, a German poet and man of letters, spoke of it in high terms in his essay on the Lues Venerea, the earliest printed work upon the subject, published in 1533.

Sir Ulric was a contemporary and opponent of Erasmus, and an enthusiastic Lutheran. He may fairly be said to have written from experience, for he died of the disease. Jerome Frascator devoted the greater part of the third volume of his poem[1] on syphilis to the praises of *lignum sanctum*, now called guaiac. This extraordinary work saw the light in 1530 at Verona; it is remarkable for the chaste and classical elegance of its language, worthy of the best days of Imperial Rome.

Guaiacum was prescribed by the best, and, more than that, the most fashionable physicians of the day, such as Nicolas Massa, who was also a famous anatomist, and Musa Brassavola,[2] who was decorated with the title of archiater by four popes, and with that of consulting physician by Charles V., Francis I., and Henry VIII. of England. This eminent practitioner thought highly also of the use of sarsaparilla and china root in syphilis and was the author of a book upon these subjects.[3]

The fashion changed and mercury was soon found a much more efficacious remedy. Berenger de Carpi, the anatomist, was the first to recognize its value, and by him it was used in the form of an ointment. This very successful mode of treating the disease was kept secret by Carpi, who by this practice amassed a large fortune, and contrived at his death to leave enormous legacies to his friends. When graciously invited to practise at the court of Spain, he returned an insolent answer to the king, and one of the popes he treated in the same contemptuous manner.

Berenger, or Berengarius, as according to the fashion of the time, he was called, was reported to have dissected one hundred human bodies, and to have been the discoverer of the vermiform appendix. Against him, at one time, was brought the charge of having vivisected two Spanish criminals for the purpose of examining the peristaltic actions of their intestines, and Eloy quaintly tells us that he selected Spaniards "plutot que d'autres parcequ' il haïssoit leur nation." The anatomists of that day, notably Vesalius, were often accused of human vivisection.

Mercurial ointments had been in use before Berenger's day, but not for syphilis. Old Guy de Chauliac, who wrote early in the fourteenth century, described an ointment in which one-tenth per cent. of mercury was present. Inunction was thus practised for many years before the internal administration of mercury was thought safe. Fumigation, too, was much in vogue. The credit of introducing this plan of treatment is due to the poet Frascator, though Aloysius Lobera, a Spaniard, who was physician to the Emperor Charles V., was the first to strongly advocate its use, and to give precise directions as to the best method of carrying it out. He regarded mercurial fumigation as an admirable procedure in all inveterate cases of syphilis, in persons of a robust habit of body; but prohibited it altogether in cases of weak or hectic patients, or such as were subject to cough, asthma, or dropsy.

It appears to have been the custom to prescribe for syphilitic patients, in addition to inunction, a prolonged diaphoresis and a very low diet. On the continent the patient was placed in a cave, oven, or dungeon, and Wiseman says that it was the custom in England to use a tub for this purpose. Extraordinary abstinence was enjoined during the continuance of the inunction. Hence the expression *tub-fast* used by Shakspere. Timon (Act IV. Sc. III.) says to Timandra

> "Season the slaves
> For tubs and baths; bring down rose-cheeked youth
> To the tub-fast and the diet."

In the foot-note to this passage in Johnson & Steven's edition of the poet's works the following quotations from old plays are given

> "—you had better match a ruin'd bawd
> One ten times cur'd by sweating and the tub."
> JASPAR MAINES, 1639.

Again, in the *Family of Love* (1608), a doctor says:

"O for one of the hoops of my Cornelius' tub, I shall burst myself with laughing else."

In *Monsieur d' Olive* (1606)

"Our embassage is into France, there may be employment for thee: Hast thou a tub."

Paracelsus, shameless charlatan though he was, was the first to teach the profession that mercury could be given by the mouth. Not only for mercury, but for a number of our most valuable remedies, to wit, antimony, sulphur, nitre, laudanum, and iron, are we indebted to this mighty impostor Philippus Aurelius Theophrastus Bombastes Paracelsus ab Hohenheim.

The prevailing belief in the humoral theory of disease, hampered for centuries the usefulness of this most useful remedy. Salivation and salvation meant the same thing in those days. Disastrous results were soon observed. As early as 1550, or earlier, there were cases recorded, notably by Massa,[1] of metallic mercury being found in the bones of persons who had died of syphilitic disease.

[1] It was dedicated to Cardinal Bembo: "Ce fut à lui qu'il dedia son Poëme intitulé. Syphilis, c'est a dire, du mal vénérien; & Bembo, apres l'avoir lu, entrouva la versification si riche & si belle, qu'il envoya á Sannozar, celebré Poëte Latin et Italien. Cetui cé fut'equlement satisfait de la lecture de cet onvrage, il avona mëme au Cardinal Hyppolite de Médicis et à Jean Baptiste de Mantone dit le Mantuan, qu'il estimoit plus ce poëme que celui qu'il avoit compose "de Partu Virginis" et auquel il avoit travaillé pendant vingt an. En effet la piece entitutée Syphilis est un onvrage daus le qout des georgiques de Virgil, dont la versification est riche et nombreuse, les images vives et les pensées noble."
Éloy—Dictionnaire Historique de la Medicine.

[2] There were two Brassavolas, eminent physicians in the sixteenth century. The other, whose Christian name was Jerome, was in high practice at Rome. He published a treatise on the nourishment of the body by means of enemata. The opinions expressed he confirmed by actual experiment. It was also proved by him that certain drugs could be administered in this manner, particularly cinchona in fevers.—Eloy, 1778.

[3] De Radicibus Chinæ usu Tractatus cum quæstionibus de Ligno Sancto. Venetiis, 1566.

[1] "Non semel in sepulchris argentum vivum in mortuorum capitibus inveni."

Treatment based upon this theory was first opposed by Pechlin in 1696, and later by Checoyneau, of Montpelier. Milder measures were the result of their teaching; but a great change took place after Van Swieten introduced into the Austrian army the use of his famous solution of corrosive sublimate. Gradually, up to the present day, the treatment of syphilis has become less heroic and more effectual.

The first treatise written in English on the subject is that of Clowes, "A Brief and Necessary Treatise Touching the Cure of the Disease now usually called the Lues Venerea." This work was first printed in 1585. Clowes was a surgeon of St. Bartholomew's and of Christ's Hospital. He had himself cured at the former institution alone upwards of a thousand patients, or above two hundred annually, in the course of five years. He used mercurial frictions and the occasional exhibition of turpeth mineral (a sulphate of mercury), or mercurius diaphoreticus, of which he speaks in terms of high commendation. Clowes was also the author of an important treatise on "burnings made with gunpowder, and wounds made with gunshot, halberd, pike, lance, etc." This latter work must have had a ready sale, for it was published in 1558, the Spanish Armada year.

Clowes' military experiences were gained in the low countries, whither he had been sent by good Queen Bess to help the wounded of the army of the Earl of Leicester.

Those were the days when syphilis was indeed syphilis;[1] and the possession of a nose was a warranty of a high moral character. The noseless became an important element in the community. Later on, in 1761, was published an essay entitled "A Plan for the Extirpation of the Venereal Disease." The author proposed that all the inhabitants of the world should simultaneously be mercurialized. To defray the cost of this large undertaking, a tax of one guinea on noses was to be levied; for, he says, "I hope that there are at least a fourth of the inhabitants of the island that have this ornamental feature actually remaining."

The business of repairing damages to these facial appendages was a trade in itself. Families took it up together, and the art descended from father to son. There lived in Sicily, in 1442, a family by the name of Branca, who were specially gifted in this somewhat unusual method of gaining a livelihood. They used skin-flaps from the arm. At the commencement of the sixteenth century a family named Vianco, in Calabria, followed the same profession.

Tagliacozzi, in 1597, Professor of Surgery in the University of Bologna, was the first to describe accurately and to practise publicly the operation since known by his name. Although he had many imitators, the practice fell into disrepute, and many began to doubt that it had ever been performed; latterly it has been revived, and successful cases have been recorded. The operation of rhinoplasty by the translation of a flap from the forehead originated in India amongst the native operators, and was brought before the notice of European surgeons in 1794.

In the seventeenth century, syphilis was a common cause of death. In the mortality returns of London, lues venerea is put down as the cause of 97 deaths in 1675; of 114 deaths in 1680; and of 104 deaths in 1694. Read Sydenham and Astruc, if you would like to know what the malady of France was in those days.

Many of the most noted characters in history were victims to its onslaughts. The enemies of Cardinal Wolsey, in 1539, accused him publicly of being diseased, and of "knowing himself to have the foul contagious disease, etc., he came daily to your highness (Henry VIII.), rowning in your ear, and blowing upon your most noble grace with his perilous and infectious breath."

Syphilis, by its common name, occurs frequently in Shakspere. Poor Dame Quickly ended her days in "'the spital," probably Bartholomew's, the nearest to Eastcheap, of malady of France. And the bard shows a remarkably familiar knowledge even of the secondary and tertiary symptoms, many of which are named in this following passage from Timon of Athens (Act IV. Scene III.):

"Consumptions sow
In *hollow bones of man:* strike their *sharp shins,*
And mar men's spurring. Crack *the lawyer's voice,*
That he may never more false title plead,
Nor sound his quillets shrilly: *hoare* the flamen
That scolds against the quality of flesh,
And not believes himself: *down with the nose,*
Down with it flat; take the bridge quite away
Of him, that his particular to foresee,
Smells from the general weal: make *curl'd pate ruffians bald,*[1]
And let the unscarr'd braggarts of the war
Derive some pain from you: Plague all;
That your activity may defeat and quell
The source of all erection."

MEDICAL PROGRESS.

ACTION OF CORROSIVE SUBLIMATE ON THE BACTERIA OF DIPHTHERIA.—DR. KAULICH, following out the results of Koch's studies as to the action of corrosive sublimate on bacteria, administers this substance internally and applies it externally. As a topical application he uses the following: Corrosive sublimate 1 part, water 1000 parts. In children upon whom tracheotomy has been performed, the trachea is washed out with the same solution, while inhalations of corrosive sublimate gr. $\frac{1}{10}$, water f℥ xxx. Kaulich also prescribes, for children, gr. ⅙–⅓ of sublimate in gum water, slightly alcoholized. He also uses as a spray for inhalation concentrated lactic acid, grs. jss–ij, distilled water f℥j. This is used every three or four hours. For the swelling of the ganglia of the neck he uses the following as a liniment: Spirits of turpentine and chloroform āā f℥ss, oil f℥iij.—*Journal de Méd. de Paris*, Oct. 27, 1883.

LINGUAL CYSTS.—In his *Thèse* on this subject, M. GÉHE makes four divisions or varieties of lingual cysts —serous, mucous, hydatid, and dermoid.

Pathology.—Serous cysts are generally situated on the under surface and at the base of the tongue. They contain clear, transparent fluid, and are lined on their inner surface with pavement epithelium. The mucous cysts are situated wherever the mucous glands are found

[1] The loss of hair in syphilis was not observed until 1536.

—at the tip and sides of the tongue and between the tonsils. They contain a ropy fluid, in which may be found cholesterin crystals. Hydatid cysts—cysticerci, echinococci, etc.—may develop at any part of the tongue. The dermoid cysts, which are seldom found, are situated in the middle line of the organ.

Etiology.—As regards dermoid cysts, Géhe accepts the theory which explains their formation by a pushing forward of the blastoderm through the bronchial fissure. Serous cysts take their origin from erectile vascular tumors, or from the so-called Bochdalek's glands, in the same manner as retention cysts. Mucous cysts are of inflammatory origin, and are caused by inflammation of the mucous crypts and partial obliteration of the gland ducts.

Symptoms.—The symptoms depend very much on the situation and structure of the cysts. Severe symptoms may sometimes arise from inflammation of the sac alone. Only hydatid cysts grow to any considerable size; the others generally remain small, and interfere only with speech and mastication. The course of these cysts is always chronic.

The diagnosis is not difficult, since the cysts can be readily examined. The treatment is the same for all cysts of the tongue, and consists in transfixing by a silk thread, which is left in place and causes suppuration, or puncturing, with or without a subsequent injection of an irritating fluid, or in partial or total extirpation. The last is least likely to cause trouble, and is radical. —*Centralbl. f. Chirurgie*, June 23, 1883.

NERVO-TABES.—At the meeting of the Académie des Sciences, on October 15, 1883, M. Vulpian presented a communication from DR. DÉJERINE regarding an affection, the symptomatology of which bears a close resemblance to progressive locomotor ataxia, but in which the lesions are not similar, at least so far as their situation is concerned, to those found in tabes dorsalis.

The works on the subject of progressive locomotor ataxia, which have appeared in the past few years, have shown that in almost all cases the affection is characterized, in its pathological anatomy, by atrophy with sclerosis of the posterior fibres and the posterior nerve roots of the cord. There are, however, certain cases in which no lesion of the cord can be found at the autopsy, although the symptomatology, of the disease had been complete, and on this account certain pathologists have expressed doubts as to the correctness of the pathological examinations in these cases.

M. Déjerine now communicates the report of two cases in which the majority of the symptoms were those of locomotor ataxia, running through all its stages, but from which the post-mortem evidences of that disease were absent. On the contrary, there was found in these cases a sclerous atrophy of the peripheral sensory nerves, this atrophy gradually becoming less as the nerves were followed toward the cord, so that the cord itself, as above stated, showed no lesion. M. Vulpian remarked that he regarded it as of much importance to science that these observations had been reported, and that there are doubtless many such cases at present in which the lesion is confined to the peripheral nerves. M. Déjerine proposes to give this affection the name nervo-tabes, as contradistinguished from medullary tabes or progressive locomotor ataxia. —*Revue Scientifique*, October 27, 1883.

TREATMENT OF SECONDARY SYMPTOMS OF SYPHILIS.—M. GOUGUENHEIM has recently (*Bulletin de la Societe de Thérapeutique*, August, 1883) given the results of the iodide and mercurial treatment in the secondary stages of syphilis.

In 1882, from April to November, 220 patients, with primary and secondary affections, were treated by the iodide in doses ranging from fifteen grains to thirty grains. In some rare cases as much as ℥j, ℥jss, and even ℥ij were given. Of the above number, 144 were cured, 44 left too soon to form an opinion, 22 were treated with mercury, *i. e.*, with liq. Van Swieten or protochloride of mercury, in pills, or by injections of peptone mercury. Of the 144 who left cured, the average stay in the hospital was 33 days. In 1881, 350 cases were treated by the mercuric method, with liquor Van Swieten, in doses of gr. ¼. 198 cases went out cured, whose average was 33 days; 68 went out improved; 84 were lost sight of by leaving too soon. The results from these statistics are equal.

From January to April, 1882, 88 cases were treated by Van Swieten's solution, in doses of grs. ss; 59 were cured; 14 left better; 15 lost sight of; average stay of those cured, 25 days. From June to November, 1883, 53 were submitted to peptone mercuric injections, in doses of gr. ⅛–¼; 20 were cured; 2 improved; 18 lost sight of; 11 were placed under iodide treatment in consequence of threatened dangerous mercurialism. For the 20 cured, the average stay was 23 days. According to this, we see the larger doses bring about a cure in much less time, 23 days instead of 33; but 11 became so affected with the mercury as to necessitate the substitution of the iodide for it.

Forty-eight were subjected to the expectant treatment, ℥ss of solution of salt being ordered, three times a day, to satisfy the patients. Out of this number, 16 were cured; 8 made better; 13 placed under iodide after the breaking out of serious symptoms; 11 were lost sight of. The 16 cured stayed only 18 days. This last number is startling at first sight, but it must be remembered that for evident reasons only the mildest cases were allowed to remain without proper treatment, and therefore must not be reckoned amongst proper statistics.

It is clear that the iodide, in doses of 15 grains to ℥ss, effects a cure in about the same time as the Van Swieten's solution, when given in doses of gr. ¼, but the preference must be given to the sublimate when administered in large doses, the more so if the hypodermic injection be employed.

Comparison of the action of each with regard to special symptoms. We must find out if this inferiority in the iodide has not some compensation in other respects.

Primary Sore. If the iodide be given during this stage, the chances are there will be no secondaries. One seems as efficacious as the other.

Syphilides—erosive, papular-erosive, and hypertrophic—of the vulva and anus. Without cutaneous manifestation it is treated by local application of arg. nit., every third day. Internally, iodide or mercury is given.

Syphilides—vulvar and anal; roseola. The hydrargyrum here has a superiority, especially if injected hypodermically.

The more obstinate cutaneous syphilides, papular, squamous, palmar psoriasis, also plantar, and lichen. The superiority still rests with the mercury.

Syphilides, buccal and pharyngeal. Here we find a difference in favor of the iodide. Mercury has even aggravated such cases, and prevented a cure. Such syphilides in the mouth assume a yellowish aspect, become painful, and exhale a fetid odor, in spite of all local applications; whereas, if the local treatment is accompanied by administration of the iodide, a cure quickly ensues. This is a very important fact to know, and is very generally ignored. Here the iodide takes precedence of any other known mode of treatment.

Manifestations on the larynx. In these cases we must make a distinction between isolated papules and

diffuse and hypertrophic manifestations. In the simple papular eruption of the larynx, mercury is as efficacious as iodine. It is, however, very different if we have to do with the diffuse appearance of inflammation, perhaps upon the epiglottis, which becomes thickened and implicates the vocal cords, the arytenoid region, etc., to such a degree as to threaten suffocation and asphyxia. Mercury, in such cases, is worse than useless—it is dangerous. The iodide, on the contrary, always gives the best possible results if given in large doses of ʒss, ʒj, and even ʒijss, in the 24 hours.

Insomnia, cephalalgia, diffused pains, osseous pains, arthralgia, myosalgia. Here the mercury and iodine are equally specific.

Ulcerating and secreting cutaneous syphilides very rarely seen, aggravated by mercury. Cured easily by the iodide.

Iritis cured by iodine, and by dropping atropia into the eye.

Visceral syphilides, such as pulmonary disease, with phthisical signs, cured by iodide.

Sometimes it (the iodide) produced a loss of appetite and stomach derangement. There is at times gastralgia. Mercury may produce gastralgia, in distinct pains and diarrhœa. Iodide should be given at a meal, very diluted. The hypodermic obtains the most rapid results, but is attended with difficulties not easily overcome. The iodide can produce intoxication or iodism, consisting of coryza, conjunctivitis, pharyngitis, acne, and other eruptions.

With regard to mercury. With the 31 cases treated by peptone mercury, 11 were the subjects of intoxication, such as salivation and loosening of the teeth.

Iodide is easier for administration, and the security far greater. The dangers from iodism are far less than those from salivation.

Contraindications against both drugs: chronic gastric affections contraindicate the use of either, and it is advisable to use hypodermic injections of mercury. The state of the stomach and throat will be a powerful agent in the selection of our medicines, and in all cases where the throat element is prominent we shall do well to choose the iodide. The condition of the skin may contraindicate the use of the iodide, and, where cutaneous eruptions exist, mercury will be preferable, although the iodide has been known to act beneficially in such cases.—*Midland Med. Miscellany*, Nov. 1, 1883.

CELLULOSE AS A DRESSING FOR WOUNDS.—DR. FISCHER, of Trieste, proposes the employment of cellulose as a dressing for wounds. Before it is applied, the cellulose is impregnated with water or some medicated solution; it is then covered with an impermeable substance, such as rubber cloth. This method of dressing is particularly applicable to wounds the cicatrization of which is favored by moist heat.

Fischer claims the following advantages for this method: 1. On account of its perfect purity, it is preventive of septic conditions. 2. It is extremely light, and will have none of the bad effects sometimes occurring with heavy dressings. 3. It causes neither erythema nor erysipelas in the vicinity of the wound. 4. The heat and humidity are preserved for twenty-four hours or more. 5. It does not adhere to granulating surfaces. 6. It can be perfectly adapted to any surface upon which it is desired to apply it. 7. It is cheaper than other substances used for dressing wounds.—*Journ. de Méd. de Paris*, October 13, 1883.

IODOFORM IN CHRONIC CYSTITIS.—DR. DAVID PRINCE, of Jacksonville, Ill., in an article on this subject, says that, reasoning from the knowledge of the action of iodoform upon other irritable surfaces, it seemed probable that the effect might be equally good on the bladder. For the most satisfactory effect it seemed desirable that the vehicle itself should be free from irritating properties. Starch was thought, from its unirritating nature, to meet the requirements, and the result justified the anticipation. ʒj grs. xv of iodoform, ground with ʒiss of starch and moistened with ʒviij by weight of water, of which about ʒiij by weight were injected, acted like a charm on the first trial. A soft catheter was introduced, through which the urine remaining unexpelled was discharged, after which the iodoform mixture was injected and allowed to remain.

In the treatment of a case of several years' duration, in a young woman, the recovery is rapidly progressing. In this case, there had come a stricture of the urethra, probably through reflex spasmodic action, and in introducing the dilator for enlarging the urethra, it was punctured, the dilator passing into the vagina. The dilator was withdrawn and passed in the right direction and the stretching was then effected, as if no accident had happened. The iodoform injection was next made. The rent appeared to heal by first intention, as there was never any symptom of its presence. There has since been no resistance to the introduction of the catheter, through which the mixture is daily injected. In the case of a gentleman who had suffered greatly for several years, there was no pain after the first introduction. He thought after four days' treatment that the capacity of his bladder had been doubled.

It is suggested that the treatment of moderate strictures of the urethra, accompanied by vesical inflammation, may be advantageously managed by a precursory treatment with iodoform and starch, after which the treatment by electrolysis and the mechanical means for dilatation may be employed. It is anticipated, from this experience, that the treatment may be employed for gonorrhœa.

The employment of pencils or bougies of iodoform in gelatine has been very satisfactory, but their retention cannot be prolonged beyond the first act of micturition. In the employment of the proposed injection, it may be expected that the iodoform will not be completely expelled by the first passage of urine, on account of the adhesion of the heavy crystals of iodoform to the mucous membrane.—*St. Louis Med. and Surg. Journ.*, Nov. 1883.

THE EXCISION OF INDURATED CHANCRE.—BUMM is disposed to deny any special therapeutic value to this procedure, not because he regards chancre as a symptom of general syphilitic infection, but on practical grounds. After the expiration of the first three or four weeks succeeding a suspicious connection, when the chances are still very favorable, it is difficult or even impossible to form a clear opinion as to the character of a local affection. It generally happens that the majority of patients present themselves for treatment with well-marked induration and glandular affections, and after the most favorable time for this treatment has gone by.—*Centralbl. f. klin. Med.*, Oct. 20, 1883.

EXTIRPATION OF A CANCEROUS VAGINA FOR CARCINOMA.—SCHROEDER reports the extirpation of a vagina for carcinomatous ulceration involving the greater part of the vagina. Instead of operating by the ordinary method, by dissection from above downwards, Schröder made a circular incision anterior to the orifice of the vagina; then isolating the canal by a blunt instrument carried towards the cervix, which he removed with the lower segment. He found that this method greatly facilitated the operation. It was not found necessary to apply any sutures. There were no untoward accidents and the recovery was rapid. In another case of partial extirpation of the vagina, he found it more advantageous to dissect from below upward.—*Berlin. klin. Woch.*, August 27, 1883.

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SATURDAY, NOVEMBER 24, 1883.

IS RESECTION OF THE CARCINOMATOUS PYLORUS A JUSTIFIABLE OPERATION?

WHEN Péan, in April, 1879, resected the pylorus for carcinoma, the procedure was denounced as a vivisection on the human subject, and the same view was entertained, outside of Germany, of Rydygier's operation practised eighteen months later. The third pylorectomy, however, in the hands of Billroth, was regarded as a great surgical triumph; and with the report of each successive case, the operator has attempted to justify his action, holding, in the event of failure, that it was not resorted to sufficiently early. In order that our readers may draw their own conclusions as to the propriety of the procedure, we present them with an analysis of the facts derived from a careful study of all the cases that have fallen under our notice. The latest reports are those of the single cases of Mikulicz and Heinecke, and the seventh case of Billroth, from the pen of Von Hacker, published in recent numbers of the *Wiener medizinische Wochenschrift*, and the two cases of Molitor, recorded by Gutsch in the *Archiv für klinische Chirurgie*, Heft 3, Bd. xxix., 1883.

Pylorectomy has been performed for carcinoma 36 times, the operators having been Billroth in 7 cases, Bardenheuer in 3 cases, Molitor in 2 cases, and Péan, Rydygier, Nicolaysen, Wölfler, Berns, Jurié, Czerny, Lücke, Kitajewsky, Weinlechner, Gussenbauer, Von Langenbeck, Hahn, Caselli, Southam, Fort, Krönlein, Tillmanns, Richter, of San Francisco, Sydney Jones, Superno, Bigi, Mikulicz, and Heinecke, respectively, in 1 case. Of the 36, 27, or 75 per cent., died, and 9, or 25 per cent., recovered.

The cause of death in 25 of the cases was collapse in 17, peritonitis in 4, collapse and partial peritonitis in 2, and inanition in 2. The majority perished within a few hours—one, indeed, on the table, 18 having died within twenty-four hours, 2 on the second day, 2 on the third day, 1 on the fifth day, and 3 on the eighth day. Of the 9 recoveries, only one month had elapsed after the operation in the 2 cases of Mikulicz and Heinecke; and nearly three months and a half had expired in Billroth's last case; 1 of Billroth's patients was doing well at the end of nine months, and 1 at the expiration of eighteen months, as reported by himself at p. 86, *Verhandlungen der Deutschen Gesellschaft für Chirurgie, Elfter Congress*, Berlin, 1882; Czerny's 1 case was living at the expiration of ten months; Wölfler's 1 case at the end of two years and a half, but a carcinomatous nodule made its appearance in the outer cicatrice in rather more than one year, which was removed by Billroth eleven months subsequently, when it was found to involve the outer surface of the peritoneum, but to have no connection with the stomach, which was in good condition; 1 of Billroth's died of recurrence in the peritoneum and retroperitoneal glands in scarcely four months; and 1 of Molitor's subjects perished in eleven months and a half of carcinoma of the rectum and pelvis, without any evidence of local recurrence, although a post-mortem examination could not be obtained.

A point of great prognostic interest is that recovery occurred in every case, 4 in number, in which the tumor is noted as having been colloid carcinoma, 3 patients being alive, respectively, at the end of one month, ten months, and thirty months, while one died of continuous recurrence in less than four months. In 7 of the recoveries, of which the notes are before us, we find that there were no complications whatever in the cases of Wölfler and Molitor, and in one case of Billroth's; that three noncarcinomatous glands were removed by Billroth in the case that was living at the end of nine months; that Billroth removed one infected gland and two nodules from the gastrocolic ligament in the case that survived nearly four months; that he removed three glands in the case that was living at the end of nearly three months and a half; that Mikulicz enucleated one gland from behind the stomach; and that Czerny, in his case that was living at the expiration of ten months, enucleated two small glands from the omentum, which slipped from his fingers and were left behind. It is not improbable that they may have become attached to the peritoneum, in which event they will act as fresh centres of infection.

In 31 of the 36 cases we are enabled to refer to the original articles in reference to the question of

complications. In 8, or 25.80 per cent., there were neither adhesions nor glandular involvement, while these features were present in 23, or 74.19 per cent., the infected glands being most common in the great omentum and surrounding the pancreas, and the adhesions being most frequent to the pancreas. Adhesions were met with in 13 cases, carcinomatous glands in 13 instances, and secondary nodules in the mesocolon or omentum in 3 cases.

The time required to complete the operation varied from one hour and a quarter to five hours; only four were executed in less than two hours; and the average was two hours and forty minutes. Even in the simple or uncomplicated cases, the average was only two minutes shorter.

We have learned from the foregoing facts that pylorectomy has killed 75 per cent. of the subjects that have been selected for the operation. When the case is not complicated by adhesions or glandular involvement, the deaths number one-half. The most frequent cause of the fatal issue is shock, collapse, or failure of the heart's action, which is probably due to the prolonged influence of the anæsthetic, to the pernicious effects of the spray, and, it may be, to irritation of the stomach and solar plexus, since, in several cases, there was an almost complete cessation of the pulse on incising the organ. We have, moreover, learned that adhesions, or secondary nodules, or glandular contamination, or all of these conditions, may be looked for in 74.19 of the cases, and it is interesting to note that Gussenbauer and Von Winiwarter have shown, from an examination of the records of the Pathological Institute of Vienna, that adhesions were present in 68.26 per cent., and that the glands were involved in 59 per cent., of 542 carcinomata of the pylorus. We have seen, further, that the successes demonstrate the possibility of the operation, but, gauged by the generally accepted criterion of permanent success—namely, well-being at the expiration of three years—the recoveries fail to show a final cure. Adding to the 27 deaths the 3 cases of recurrence, 83.33 per cent. of the operations have not been productive of permanent good. Deducting from the entire number the two recoveries which were reported at the expiration of one month, and the one which was well at the end of nearly four months, but including among the failures the three cases of return of the disease, and granting to the advocates of pylorectomy as cures the three cases in which the patients remain well, respectively, for nine, ten, and eighteen months, without recurrence, 33 operations show 91.66 per cent. of failures against 8.33 per cent. of successes. This assumed success is, however, more than counterbalanced by the frightful mortality of the procedure, through which it may be truly said that pylorectomy shortens instead of prolongs life.

The advocates of the operation urge that it is usually performed too late, or at a time when the patient's health is so deteriorated that he cannot withstand the shock. This objection is only partially true. The 8 simple cases were attended with a mortality of 50 per cent., and, as we shall see presently, the 4 resections for cicatricial stricture were also followed by an equally fatal result. Hence, we are disposed to attribute the death-rate as much to the severity of the operation and the long time required to perform it, as to the condition of the subject at the time it was practised.

In view of the incurable nature of carcinoma, pylorectomy, even if attended with a death-rate of 50 per cent., is justifiable in our opinion, in proper cases, that is to say, when the pylorus alone is involved, when the tumor is small and not complicated by adhesions or glandular involvement, particularly if it be of the colloid variety, and when the condition of the patient will enable him to bear the severe shock. Were these conditions always, or frequently present, the surgeon should not hesitate to afford the patient his only chance. The diagnosis, however, in the early stages of the disease is most obscure, and there is no possible mode of determining the questions of the nature of the growth and of complications. In several of the cases an apparently mobile tumor was found to be firmly attached to the pancreas or other organs; and in one case, recorded by Billroth, in which a mobile tumor and other symptoms clearly pointed to carcinomatous stenosis, the disease proved to be a lymphoma behind the pylorus. Billroth, indeed, states explicitly that only one case out of every fifty or sixty is fit for resection. In addition to the cases in which he finished the operation, he had, up to June, 1882, opened the belly twenty times, and abandoned further precedure on account of complications. All of these cases fortunately recovered from the exploratory incision, as did also the five of Rydygier, the three of Bardenheuer, and the single cases of Czerny and Rupprecht, the patient of Verneuil having perished. In examples of this description, the obstacles to removal will be found, as a rule, to be adhesion of the pylorus to the pancreas and implication of the chain of glands in front of the bodies of the vertebræ and behind the stomach. If to these incomplete operations be added the four cases of gastroenterostomy, one case of gastrostomy, and 1 case of duodenostomy, which were resorted to to prevent starvation when the pylorus could not be removed, we have 72 cases in which pylorectomy has been finished or abandoned, with the result of prolonging life in 4, or 5.5 per cent. on an average, for seventeen months.

Although the technique of the operation is almost perfect, the obstacles to the proper insertion of the sutures, and to fashioning the wound of the stomach to that of the duodenum are not easily surmounted by the surgeon who has to deal with his first case. If to these difficulties be added the adhesions met with in so large a proportion of the cases, along with the shock which of necessity must attend so prolonged an operation, it is obvious that pylorectomy must be excluded from general surgery. Indeed, in view of its great mortality, of recurrence in one-half of the cases that had survived long enough to determine this point, and of the doubts as to the final termination of the remaining cases which were living at the date of the last reports, it is questionable whether it should be repeated by those who have had the most experience with it.

The pylorus has also been resected for stenosis arising from ordinary causes 4 times. In 3 cases it was removed for stenosis from ulcer, the operators having been Rydygier, Lauenstein, and Van Kleef. The patient of Rydygier was in good condition seven months subsequently, and advanced five months in pregnancy. The case of Lauenstein perished from gangrene of the transverse colon on the seventh day. The patient of Van Kleef was living at the expiration of six months. In the fourth example, Billroth operated for obstruction due to the swallowing of caustic soda, and death ensued on the sixth day from peritonitis, the contents of the stomach having escaped into the peritoneal cavity from the giving away of six of the stitches. The mortality of the operation for stenosis is, therefore, 50 per cent. If these cases be added to those of resection for carcinoma, we find that 40 pylorectomies have resulted in 29 deaths and 11 recoveries, the percentage of the former being 72.5, and of the latter, 27.5.

With a view to complete the surgery of gastric resections, we may be permitted to recall the attention of our readers to the successful removal of a portion of the stomach for chondroid fibroma, by Cavazzini, and to the case of extirpation of a portion of the anterior wall of the greater curvature for carcinoma, by Koehler, which died of collapse in six hours.

ACTINOMYCOSIS—"SWELL-HEAD."

AT the request of the Chicago Commissioner of Health, Oscar C. DeWolf, M.D., an investigation of the bovine disease popularly known as "swell-head" or "lumpy jaw" has been recently instituted by Dr. W. T. Belfield.

A brief summary of the facts developed during the investigation must be of interest to the profession in general, apart from its particular value to the sanitarian. A large number of cattle affected with "swell-head" from all parts of the West, have arrived in Chicago, but owing to the enforcement of stringent regulations by the Inspector of Cattle at the Union Stock Yards, the proportion has been greatly decreased. Five animals were examined by Dr. Belfield. Four of them were in poor condition; their hides were roughened and their bodies presented varying degrees of emaciation. In these animals the disease had attained its greatest severity. The fifth animal was in good order and the symptoms of the disease were less plainly marked.

Macroscopic examination revealed a globular tumor, varying in size from that of an orange to a musk melon, situated in the facial region in each affected animal. Three of these tumors were firmly attached to the superior maxilla, one to the inferior maxilla, while the fifth was located below the orbit. The tumors connected with the jaw-bones were hard, resisting, and gave to the touch the sensation of cartilage. Different points upon the periphery were soft and semi-fluctuating. The surface of each tumor was ulcerated and covered with thick pus. The tumor below the orbit was soft and fluctuating.

Upon section, the greater portion of each tumor was found to be composed of a hard white substance, resembling fibro-cartilage, firmly attached to the periosteum. The boundary-line between the tumor and true osseous tissue could not always be discovered. The osseous tissue was swollen, softened, honeycombed with cells, and filled with thick pus. The soft, fluctuating points were found to be cavities filled with pus. In the pus were found numerous small yellow bodies, resembling yellow miliary tubercles, about the size of a pin's head.

Microscopic examination showed the mass of the swellings to be composed of firm, connective tissue, and the miliary bodies to be groups of microscopic plants, called actinomyces, which belong to the class of radiating fungi.

From this examination, the diagnosis of actinomycosis was made.

To the best of our knowledge, this constitutes the first recognition of actinomycosis in America. The disease itself has been known for a long period of time under such names as "swell-head," "lumpy-jaw," sarcoma, cancer, and tuberculosis.

Bollinger, Royal Professor of Veterinary Surgery in Munich, discovered the actinomyces in a case of "swell-head" in 1877, and suggested the name of the disease. His researches were abundantly confirmed by the results of other investigators. Ponfick and Johm proved the causative relation existing between actinomyces and the disease "swell-head." The fungi were separated from the tumor, cultivated, and injected into the veins and abdo-

minal cavities of different animals. These experiments resulted in the production of a disease identical in all its characters with the original affection.

The habitat of the actinomyces has not as yet been discovered. A plausible theory is that the plants have their origin in the cereals, and it is supported by the facts that actinomycosis occurs only in graminivorous animals, and that the disease affects, by preference, the jaws, tonsils, and such portions of the body as come into contact with grains. In the case examined by Dr. Belfield, he was unable to trace the entrance of the parasite through carious teeth.

The course of the disease in cattle is various. A certain number of spontaneous cures have been recorded. The disease, as a rule, remains localized, although cases of embolic deposit in every organ of the body are known.

More than thirty cases of actinomycosis occurring in the human species have been reported by German observers. In man the disease seldom remains a local affection, and is invariably fatal. Every organ and tissue of the human body is liable to invasion, and it simulates other diseases very closely. The human body seems to afford a highly congenial soil for the propagation of this parasite.

Actinomyces probably gain entrance into the human system through carious teeth, or abrasions upon the skin surface. The disease is contagious, in so far as it can be conveyed from a diseased to a healthy animal. It has not been demonstrated that it may be conveyed from an animal to man.

Two species of actinomyces have been discovered by German observers, and Dr. Belfield is of the opinion that the plant recently discovered in Chicago presents important points of difference from those already described.

SANITARY INSPECTION OF SCHOOLS.

WE are glad to observe that the subject of the sanitary inspection of our schools is day by day eliciting more and more attention in different parts of the country. A recent inspection of some of the public schools in Brooklyn has brought to light unsuspected and serious defects in the sanitary arrangements, which furnishes proof of the necessity for instituting a regular and systematic inspection of the schools of that city. Similar examinations have been made of some public schools in New York City, and thus far with like results. The Board of Health, realizing the situation, have determined to undertake a sanitary examination of all the school buildings, employing for this purpose a large corps of sanitary inspectors who are to make frequent reports upon the results of their labors.

In 1882 the Philadelphia Board of Health requested Councils to authorize the employment of four sanitary inspectors of schools, whose entire time should be devoted to a service modelled after that adopted with such satisfactory results in Brussels. The duties of the single medical inspector in the employ of the city and of the port physician would not admit of the diversion of their time to this new field of labor. The request was not granted. This year the request was renewed and the importance of the subject was fully presented to the Finance Committee, which committee shapes the appropriations of the city and exerts a potent influence upon the legislation of Councils in all matters of finance. The item was not allowed, but in lieu thereof a small appropriation was granted for the expenses of a horse and carriage for the medical inspector, upon the condition that he inspect the schools and report the results of his labors at the end of the year. While this action is an admission of the need of the service, it shows how thoroughly misunderstood are its requirements. We hope the Board of Health will persist in their demands for a proper recognition of the importance of this branch of sanitary administration until the obstructionists in councils shall be obliged to yield to the pressure of enlightened public opinion.

A NEW METHOD OF RESECTING THE KNEE-JOINT.

IN the *British Medical Journal* for October 20, MR. RICHARD DAVY, of the Westminster Hospital, London, describes a new mode of excising the knee-joint, by means of which the bones are maintained absolutely immovable, and the parts need not be disturbed from the date of operation until the patient has recovered. The case he reports was that of a girl, sixteen years of age, suffering from angular deformity of the knee, the result of resection practised thirteen years previously. After removing a rectangular wedge from the femur and tibia, a mortice was cut in the head of the tibia, into which the femur, shaped as a tenon, was impacted up to fixity of tenure by pressure on the foot. The limb was swung in an appropriate splint, and, without any special dressings, the recovery was complete on the one hundred and thirtieth day, the girl walking well with the aid of a cork boot, firm osseous ankylosis having occurred. The operation has been repeated by Mr. Macnamara, the subject being still in the hospital.

Tibio-femoral impaction, as this novel procedure is termed, effectually guards against displacement of the bones, which is one of the most trying circumstances with which the surgeon has to contend in resection, as ordinarily practised. While it is true that the operation interferes with the subsequent growth of the limb in children, Mr. Davy very properly claims that a human foot attached to

a shortened ankylosed limb is far more useful than an artificial limb adapted to a thigh stump; and he therefore does not hesitate to recommend his operation as a substitute for ordinary excision in young persons. The same method of impaction is also applicable to ununited fractures.

SAD FATE OF THE YELLOW FEVER MICROBE.

M. LACERDA, of Lisbon, found in the liver and kidneys of yellow fever subjects a parasite, supposed to be the infective principle. Portions of these organs containing the parasite were examined by MM. Cornil and Bebes, but these expert sceptics ascertained that Lacerda's microbe consists of bits of vegetable tissue and pigment. *Exeunt omnes.*

REVIEWS.

THE PRINCIPLES AND PRACTICE OF SURGERY. By D. HAYES AGNEW, M.D., LL.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Vol. III. Royal 8vo. pp. 784. Philadelphia: J. B. Lippincott & Co., 1883.

WITH admirable dispatch this volume succeeds its predecessors and worthily completes the *magnum opus* of its author. In wealth of illustration, in details of personal experience, in the thoroughness with which the subjects it treats of are dealt with, and brought up to the present state of surgical knowledge, it appears to be in every way the equal of its fellows.

Dr. Agnew is an all-round surgeon, and in this volume treats matters which of late years have been very much relegated to the domain of specialists. Thus in successive chapters are treated surgical diseases of the larynx and trachea; of the nose, naso-pharyngeal region, and associated parts; of the eye and its appendages; of the ear, and malformations and deformities. Nor are these subjects treated in a cursory or superficial way, but the practitioner who turns to them will find that, while condensed in form, they represent the very latest knowledge, and include pretty much all that he will care to know. The specialist may wish to study more ample monographs, but he will find in these chapters of Dr. Agnew not only the accretions of special inquiries, but the deliberate judgments of one whose experience has been vast, and who has arrived at his conclusions from the broad ground of a general surgeon, and a careful, acute observer.

The chapter on syphilis will be read with much interest. Dr. Agnew occupies a middle ground, holding that both chancre and chancroid may be derived from the same source, the former being the result of inoculation with a peculiar germinal principle, wherein lies the essence of the syphilitic poison, while the latter results from inoculation with the purulent material accompanying this germinal principle. Dr. Agnew gives the influence of his great name in favor of proper legislation to regulate prostitution, opining that as the State can not be charged with complicity in arson, theft, and fornication, because it passes laws which are restrictive of these crimes, it cannot with justice be charged with winking at immorality because it passes and enforces laws which Dr. Agnew's experience tells him will be highly advantageous to the public health.

In the chapter upon tumors will be found a comprehensive epitome of every recognized form of abnormal growth, and here as elsewhere, the thoroughness with which the pathology has been brought up to the present time is a very noticeable feature of this great surgery.

In other chapters there are considered affections of the muscles, tendons, bursæ, and aponeuroses; surgical affections of the nerves; surgical affections of the lymphatic system, skin, and subcutaneous connective tissue; and diseases of the mammary gland. Full, accurate, and experimental they will all be found.

Electricity in its application to surgical therapeutics; the various operations for nerve-stretching, and massage are the subjects of the last three chapters.

Those who enjoy the personal acquaintance of Dr. Agnew will recall the feeling of relief they experienced when they knew that he had been summoned to the bedside of President Garfield, and the perfect confidence they enjoyed in knowing that every thing would be done that human skill could dictate, a confidence which has been unshaken by notorious criticisms either at home or abroad, and as they turn over the pages of this volume they will be glad that the profession at large has an opportunity to know the extent of the skill and the profundity of the knowledge which was joined with that of Professor Hamilton in the case of the man to whom so many hearts went out in tender sympathy.

We most heartily congratulate Dr. Agnew upon the completion of his arduous task, and do not hesitate to proclaim our opinion that this treatise on surgery is fully entitled to take and maintain a place in the very front rank among works of its kind.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, October 9, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

CICATRICIAL CONTRACTION FROM A BURN.

DR. A. C. POST presented a patient, for whom he was indebted to the President. A boy, two and a half years of age, was admitted to the Presbyterian Hospital on the 17th of September. One year previously he had been burned by falling against a stove. Only one finger of the left hand was injured, namely, the index, which was bent and held by a cicatricial band. The right hand was burned much more severely; the thumb escaped, but all the fingers were contracted, the amount of contraction diminishing from the index to the little finger. The terminal phalanx of the index was bent at quite an acute angle. Dr. Post divided the bands of cicatricial tissue through the entire thickness of the indurated parts at intervals of about three or four millimetres, and was able to bring the fingers into a straight position. The operation was performed on the 18th of September, upon both hands. The splint was removed from the left hand on the 24th of September, and had not been reapplied. The splint had not been omitted from the fingers of the right hand, although they were perfectly straight and the tissues were flexible. The treatment consisted in free multiple incision through cicatricial bands, forcing the fingers back and applying a narrow splint of malleable iron covered with tissue-paper, extending upward to about half the length of the forearm. Recently, Dr. Post had treated the operation wounds in this class of cases by first dressing the parts with carbolized oil or vaseline, and at subsequent dressings sprinkling them very freely with nitrate of bismuth to fill up all the interstices between the incisions. He had found that the bismuth dressing answered an exceedingly good purpose. The granulations had been kept down in this

manner, the wounds had been in a remarkably healthy condition, and with but very little suppuration.

THE PRESIDENT remarked that the restoration was an exceedingly gratifying one to him, as the deformity was very great when he saw the patient.

EXCISION OF A PORTION OF THE SPINAL ACCESSORY NERVE FOR SPASMODIC TORTICOLLIS.

DR. H. B. SANDS presented a patient, thirty-nine years of age, a druggist by occupation, who had consulted him in May, 1882, on account of the disease, which first appeared nine months previously. The attacks of spasm were at first less frequent than they became subsequently, and produced a rotary movement of the head, causing it to turn forcibly to the left side. No effort on the part of the patient could prevent the movement. In the beginning, the turning of the head occurred about once in three minutes; subsequently, it became more rapid, and it was estimated that the intervals between the movements did not exceed three seconds. Before he came under Dr. Sands's care he had been treated by Dr. Seguin, who had thoroughly administered hyoscyamin, the bromides, atropia, conium, and other remedies, but without any beneficial result. The patient, when Dr. Sands first saw him, was quite weak, and the contraction of the sterno-mastoid upon the right side was almost constant. It was decided to excise a portion of the spinal accessory nerve, which was assented to. In a previous operation he had followed the plan suggested by the late Mr. de Morgan of making an incision along the posterior margin of the sterno-mastoid muscle, exposing the nerve and tracing it forward, but he had found this procedure difficult and unsatisfactory. He therefore determined to try an operation by which the nerve could be reached not far from its exit from the skull; just in front of the point where it penetrates the muscle he made an incision three inches in length along the anterior margin of the sterno-mastoid, beginning close to the mastoid process. After exposing the muscle and turning it outward, he readily found the spinal accessory nerve, where it crosses the internal jugular vein, which was felt, though not seen, during the dissection. A piece of the nerve one-fourth of an inch in length was excised, and the wound was closed by sutures and covered with an iodoform dressing. Healing by adhesion was complete on the 24th of May, nine days after the operation. Immediately after the operation, the sterno-mastoid ceased to contract, and it is now paralyzed and atrophied. The patient, however, did not recover immediately from the torticollis, as there still remained a marked tendency to rotation of the head toward the left side, this being due mainly to contraction of the left splenius muscle, which could be felt as a thick, hard mass. On the 7th of June, however, the condition of the patient was very much improved, and by the middle of June he was nearly free from spasm. For six months afterwards he continued to suffer at intervals, and regained entire control of his movements only after going into the country and improving his general health. Even now he occasionally finds that his head is disposed to turn to the left side, but he has no difficulty in preventing this movement, or in turning to the right. Considering his distressing condition when he came under Dr. Sands's observation, the result must be regarded as quite satisfactory.

Dr. Sands also presented another patient, an expressman, aged 31, upon whom he had performed a similar operation and removed two-fifths of an inch of the spinal accessory nerve on the 25th of June of the present year. The patient had been engaged as an expressman for fourteen years, during which time it had been his habit to carry trunks upon his right shoulder, turning his head well toward the left side, thus, in his opinion, laying the foundation of his disease. Four or five months before he came to Dr. Sands, he began to experience some difficulty in turning his head to the right side, and also became subject to clonic spasm of the muscles which turn it to the opposite direction. Seven weeks before the operation he was treated by the application of the actual cautery along the course of the affected muscle, but without any good effect. The treatment, however, was followed by tonic spasm of the muscle, so that from that time there was no longer a rotary movement, but an extreme rotation toward the left side, so that his face looked over the left shoulder. The case, then, resembled more one of ordinary torticollis than it did one of clonic spasm. In this instance, the discovery of the nerve at the time of the operation was more difficult than in the former one, and the internal jugular vein was more distinctly exposed. The wound healed without suppuration, and on the 18th of July, he left the hospital much improved. As in the other instance, the sterno-mastoid and trapezius were paralyzed, yet recovery was gradual. For several weeks he had some difficulty in keeping his head in the proper position. He is now, however, quite well. In this case, two or three weeks after the operation it was noticed that the head was still inclined to turn towards the left side, the left splenius, the trachelo-mastoid, and the inferior oblique being probably the muscles contracting. Dr. Sands believed that it was usual in cases of spasmodic torticollis to find that the sterno-mastoid is not the only muscle affected. In a case reported by Mr. de Morgan many muscles were involved, including those of the eyeball. Dr. Sands had seen a case about a year ago, in which the integument could be observed to be raised during spasmodic contraction of the omo-hyoid.

The cure by division of the nerve seems to be gradually effected, and to be due to the cutting off of the nervous supply of one of the principal muscles involved in the disease. He did not feel certain of a permanent result in either of these cases, but the condition is now such as to afford great encouragement. He regarded the operation by dividing the nerve anteriorly as far better than that suggested by Mr. De Morgan, because by cutting in front the nerve can be reached before it divides into two branches, and a portion of the common trunk exsected quite near to its exit from the skull.

DR. F. LANGE had had a similar case in which he gave temporary relief by stretching the spinal accessory nerve. The benefit remained for only a few weeks. It was evident that the clonic spasms were mostly due to action of the muscles in the rear part of the neck on the opposite side, and he therefore finally cut through the principal muscles upon the opposite side of the neck, which gave an apparent cure for a shorter period of time. But the trouble then recurred, although to a somewhat less degree. What the final result was he was unable to state. It was certain that in this case the action of the sterno-mastoid was entirely paralyzed by the stretching of the nerve. The muscle had been divided frequently by other surgeons previously to the stretching, yet it acted well before Dr. Lange performed his operation.

FOREIGN BODY IN THE LEFT BRONCHUS; REMOVAL; CURE.

DR. R. F. WEIR presented a patient, a woman, twenty-five years of age, who, on the 26th of August, went to have a tooth extracted. While partially under the influence of the anæsthetic, a portion of the tooth escaped from the forceps, and was inhaled. She suffered from marked dyspnœa, which continued for some time, but finally she got easier, and went home. From that time until six days afterwards, she had frequent

attacks of dyspnœa, which were relieved very much by the administration of morphine. When Dr. Weir first examined the patient, he found evidence of obstruction at the level of the sixth dorsal vertebra, and two inches to the left of the median line, where could be heard a whistling sound that extended from the lower portion of the lung. When she was in the erect position, this sound disappeared from the chest. After she had entered the hospital, the attacks of dyspnœa were becoming more frequent, and on the thirteenth day after the tooth had become loosed in the chest, the operation for the extraction of the foreign body was performed. Prior to opening the trachea, an attempt was made, while under the influence of the anæsthetic, to dislodge the foreign body by inverting the patient, and shaking her, jarring the chest, etc.; but as it was unsuccessful, tracheotomy was resorted to, with the patient's head strongly thrown back, the opening being made as low down as possible. Several rings were divided, and an opening made sufficiently large to admit the finger, which Dr. Weir endeavored to pass into the trachea, but this he was unable to do. He then introduced a bent forceps, like the ordinary nasal polypus forceps, carrying them to a depth of four and a half inches, entered the left bronchus, and was able to touch the foreign body, but could not seize it. Different bent forceps were then introduced, but he failed with each in catching the tooth. A piece of wire, slightly twisted to form a loop, was tried, and the same loop, bent upon itself to form a hook, was also introduced, but without success. Before ceasing instrumental interference, it was finally determined to use a wire, to which a number of threads had been tied. While this was being prepared, Dr. Little suggested that an ordinary piece of silver wire be bent into the form of a loop, and introduced. This was quickly prepared, and Dr. Weir passed it deeply into the air-passages, and happily it caught upon the foreign body. The resistance, however, was so firm that he did not dare to make very much traction; but with the wire held taut, he introduced the forceps, passing them along by its side, and with the wire and the forceps he succeeded in withdrawing the foreign body, which was the smaller half of a wisdom tooth. The tooth seemed to have been lodged upon the anterior wall of the bronchus—that is, the line of traction seemed to have been in that direction. The opening in the trachea was made so low down that, when the muscles were relaxed, it was found that the lower half of the incision was below the sternum. Only a very slight amount of bronchitis followed the operation, and complete recovery took place.

DR. WEIR also reported a case, that of a child two years of age, who inhaled a coffee-bean two days previous to the one just reported, and in whom he performed also tracheotomy for its extraction. When the patient was first seen, the house surgeon was about to perform tracheotomy, but just as the skin was divided, the child suddenly ceased coughing, and breathed so easily that the operation was abandoned on the supposition that the foreign body had been removed. Two hours later, however, when Dr. Weir first saw the case, the child was breathing with considerable difficulty. He then opened the trachea, searched above and below, but did not feel the foreign body. A suture was introduced on each side of the opening, so that the edges of the wound could be held open, if at any time it became necessary to further explore the trachea. The progress of the case proved that this was a wise precaution, for soon afterward the child was found breathing very peculiarly. The tube which had been introduced was withdrawn; the wound in the trachea was held open by means of the sutures, and out popped the roasted coffee-bean considerably swollen. Pneumonia developed, and the child died on the fourth day afterward.

DR. SANDS said that an unsuccessful attempt to explore the trachea by means of the finger in Dr. Weir's case, recalled to his mind a case which occurred many years ago in St. Luke's Hospital. The man had a portion of an India-rubber tracheotomy tube lodged in the left bronchus, and some difficulty was experienced in determining exactly where the foreign body lay; in that instance Dr. Sands passed his finger down through the tracheal wound and immediately detected the foreign body just below the point of bifurcation. A forceps was then inserted and the foreign body extracted. Since making this discovery, he had often demonstrated upon the cadaver that he could pass his finger into the trachea always as low as the place where it divides, often being able to cause the extremity of the index-finger perhaps to enter either bronchus a distance of half an inch. This mode of exploration may be of great value, by enabling the surgeon to determine exactly where a foreign body lies, so that it can be readily seized with a forceps.

THE PRESIDENT remarked that these cases illustrated one point in diagnosis which had interested him. In a case which he had some time ago, one in which a shirt-button passed into the right bronchus, and which he extracted with the forceps after tracheotomy, Dr. J. R. Leaming made the diagnosis as to location of the foreign body. In that instance the obstruction was manifestly in the two lower lobes of the right lung; the upper lobe being perfectly resonant and the respiratory murmur distinct. In the case which Dr. Weir has now reported, the position of the foreign body was determined by the fact that the whole left side showed absence of respiratory murmur. In the right bronchus, the bronchial branch which goes to the upper lobe, sometimes comes off very near to the bifurcation, and from this point there is quite a distance before the next division takes place. It is between the first branch and the second point of division of the bronchus that the foreign body lodges when it enters the right bronchus. When a foreign body enters the left bronchus there is no branch until the tube breaks into its final divisions, nearly two inches from the trachea; and, therefore, when this left bronchus is obstructed, all entrance of air is excluded from the whole of the left lung.

REMOVAL OF ENTIRE TONGUE, SUBMAXILLARY, AND SUBLINGUAL GLANDS AND THE LATERAL WALL OF THE PHARYNX, BY KOCHER'S METHOD; CURE.

DR. BULL presented a man forty-one years of age, who had been in good health up to four months before admission to hospital. At that time he observed a small ulcer on the left side of the tongue, and at the same time a swelling under the jaw. Both increased rapidly in size, the tongue becoming hard about the edges of the ulcer, and causing severe pain at night and while eating. His appetite had continued good, and he had not materially depreciated in weight or strength. On examination, a ragged, excavated ulcer was found on the left side of the tongue about its middle, reaching upwards to the dorsum, backwards as far as the palato-glossal fold, along which it extended to the mucous membrane covering the posterior end of the internal pterygoid muscle. Its edges were indurated, surface sloughy, discharge sanious. The submaxillary gland formed a mass of twice its normal volume, but was not hard nor tender. No other enlarged glands. A piece of the edge of the ulcer under the microscope proved to be epithelioma.

Operation August 11th. Preliminary laryngotomy was done and the pharynx stuffed with sponges on strings. By raising a triangular flap the submaxillary

triangle was explored, the facial artery and vein ligated, the submaxillary gland removed, then the lingual artery and vein tied, and the sublingual gland with one-half the tongue removed with the scissors as far back as the hyoid bone. The other half was removed in the same way, as well as the mucous membrane of the pharynx beyond the posterior pillar of the fauces, and as low down as the hyoid bone—including that covering the inferior and posterior part of the pterygoid muscle. A hard enlarged gland was now found under the sterno-mastoid, closely adherent to the carotid sheath, and extirpated. Several bleeding spots were touched with the cautery. Moderate bleeding occurred during the operation, as all the large vessels were tied before being cut, and the forcé-pressure forceps were freely used. The wound was left open, the raw surfaces covered with iodoform gauze and absorbent cotton, and percha tissue applied over it. The pharynx and mouth were stuffed with gauze moistened with Thiersch's solution of boracic acid one part, salicylic acid six parts, water five hundred parts; the tracheal tube was covered with a carbolized compress. The only nourishment given during the first twenty-four hours was two enemata of beef-peptonoids with whiskey; after that the stomach-tube with a funnel attached was introduced twice daily, the gauze in the mouth being renewed each time. Between two and three pints of milk, and later, beef-tea, soup, and milk-punch were administered at one time. The iodoform gauze was not changed till the sixth day; after that the gauze in the mouth was discontinued, and the iodoform gauze renewed once or twice daily, the granulations being sponged with the boro-salicylic solution. There was no constitutional reaction, the pulse not going above 90, nor the temperature above 99°. On the fourth day the man sat up for several hours. On the seventeenth day he took food himself, although the wound would admit three fingers. The discharge was moderate, never offensive. The wound was the size of a goose-quill at the end of five weeks, reduced to a trifling sinus a week later, and entirely closed at the end of seven weeks. The cicatrix is drawn up behind the lower jaw, the motions of which are not impeded. There is no sign of recurrence. The contraction of the cicatrix has drawn the anterior pillars of the opposite side of the fauces markedly towards the median line.

DR. WEIR exhibited several new instruments designed to aid in controlling hemorrhage during operations. Among these were Tait's and Esmarch's forcé-pressure forceps, Jouillard's forceps for removal of goitre, and a ligature-carrier of his own device.

COMPOUND FRACTURE OF THIGH AT JUNCTION OF SHAFT WITH LOWER EPIPHYSIS; AMPUTATION OF THIGH.

DR. A. C. POST presented a specimen with the following history: September 16, 1883, I was called to see W. D., a boy, eight years of age, in consultation with Dr. Lathrop, of Wurtsboro, and Dr. Van Winkle, of this city. About two months before I was called to see him, he was with his father's family in the country, and, riding in a wagon, his left knee was caught between the spokes of a wheel, and violently wrenched. The result was a fracture of the thigh at the junction of the shaft with the lower epiphysis, the end of the shaft projecting through an extensive wound on the outer side of the knee. The severity of the injury was such that Dr. Lathrop, who was called in, recommended immediate amputation; but the parents would not consent. The patient was brought to town the day before I was called to see him. I recommended that the patient should be etherized, and the limb thoroughly examined.

17th.—The patient was etherized. The limb was much swollen from the middle of the thigh to the foot. There was an extensive wound on the outer side of the knee, through which protruded the end of the shaft of the femur, detached from the epiphysis, and in a state of necrosis. Sinuses extended through different parts of the thigh, leg, and foot. There were sloughs over the sacrum and over the heel. The posterior part of the os calcis was exposed and carious. Portions of the shaft, of the tibia, and fibula were exposed and rough, indicating superficial necrosis. The anterior extremities of the astragalus and cuboids were exposed and rough. Several of the other tarsal bones were in a similar condition. The patient was very pale and emaciated, but his appetite and digestion had been pretty good. I performed amputation in the middle of the thigh. The incision passed through the upper end of an abscess, through which a finger could be passed up four or five cm. The operation was well borne, and very little blood was lost. The wound was thoroughly washed with carbolic acid, 1 to 40, a tent introduced into the suppurating cavity, and the edges of the wound brought together with sutures. Absorbent cotton was applied, and pressure made with a roller-bandage. On examining the limb, the epiphysis was found *in situ*, but eroded, and almost denuded of cartilage. The head of the tibia was in a similar condition. The knee-joint was disorganized. The medio-tarsal articulation was open; the cartilaginous surfaces of the astragalus, cuboids, navicular, and two of the cuneiform bones were eroded. One of the cuneiform bones had been discharged.

18th.—Patient was troubled with vomiting after the operation, and he has not regained his appetite. He has slept for a number of hours; his pulse is steady, and not very feeble. Directed milk with arrowroot and a little brandy, as the patient can be induced to take it.

19th.—Dressed wound, and removed several of the sutures. Patient has moderate diarrhœa, but no vomiting. Ordered t. opii camphor. p. r. n.

21st.—Dressed wound again; the edges have receded at lower part. Removed all the sutures; washed wound with carbolic acid, 1 to 40. Applied emp. adhes. and bandages to close wound. Diarrhœa continues. Ordered mist. creta with t. op. camphor.

25th.—Decided improvement in general condition. Wound granulating.

Oct. 3.—Wound rapidly healing. General health steadily improving.

9th.—Continued improvement.

DR. W. T. BULL presented a specimen of

SUBPERITONEAL FIBROID TUMOR OF THE UTERUS, WITH BOTH OVARIES AND STUMP OF THE UTERUS REMOVED BY LAPAROTOMY.

A single woman, æt. 34, was admitted to his service at St. Luke's Hospital, in August of this year, with a history of frequent backache, dragging pains in lower part of abdomen, and vesical tenesmus for three years previously. Menstruation regular. In the middle line of the lower part of the abdomen was a smooth and rounded tumor as large as a child's head, plainly felt above the pubes and in the cul-de-sac of Douglas. It was movable, not tender, apparently cystic, and the uterus, which lay in front of it, was anteverted and thrown over to the right, where the fundus could be felt through the abdominal wall. I had seen the woman six months before, when the tumor was no larger than an orange, but after Dr. Thomas and Dr. Hunter had advised against operation, I decided to wait. On her entering the hospital again, Dr. C. S. Ward agreed with me as to the advisability of operation, which was performed on August 14th. After exposing the tumor by an incision five inches long, adhesions were found

to the ovaries and uterus. A double silk ligature, carbolized, was passed round each broad ligament. The uterus, just above the vaginal junction, was first temporarily constricted with an écraseur, and the tumor cut off an inch and a half beyond this. The pedicle (uterus) was then transfixed and tied with carbolized silk, cut off again half an inch beyond the silk, rubbed with iodoform and returned. On the left side of the pelvis the torn surface of the broad ligament bled; one silk ligature was applied and the surface rubbed with iodoform.

The sutures were removed on the fifteenth day; temperature ranged between 98° and 99.5° F. On the second, third, and fourth days there were vomiting and slight abdominal pain and tympanites.

The tumor was examined by Dr. Ferguson, who reported that it was a fibro-myoma; subperitoneal, from the posterior surface of the uterus, about equally from the body and neck. The ovaries are normal in size, the left containing two small cysts. The uterine body is slightly enlarged and laterally flexed. The neck above the point of section is elongated. The mucous membrane is normal.

DR. E. L. KEYES exhibited the different kinds of forceps used by Sir Henry Thompson in *removal of tumors of the bladder.*

CINCINNATI ACADEMY OF MEDICINE.

Stated Meeting, November 5, 1883.

THE PRESIDENT, W. W. SEELY, M.D., IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

DR. JOSEPH RANSOHOFF, F.R.C.S. Eng., reported the following case of

RETRO-PERITONEAL CYSTO-SARCOMA:

J. H., æt. 33, a baker. Father died aged 73; mother died when patient was a child. Three brothers and sisters died in childhood. Patient states that he has never been seriously ill prior to the beginning of the present illness, although for a number of years he has been addicted to drinking beer in large quantity. When the present trouble commenced, he also averaged nearly a pint of whiskey daily. Has had gonorrhœa twice, but has never had syphilis. Has had an inguinal hernia of right side from childhood. Two years ago he observed a swelling of the left foot, followed in the course of a week by that of the right. The œdema rapidly involved the legs and thighs and reached the abdomen. The abdomen has since continued to enlarge in its uppermost part, although the swelling of the extremities speedily subsided. Nearly a year ago, a physician in Covington tapped him for ascites, but no fluid escaped. While considerable dyspnœa has been felt during a year past, there has never been any marked pain. Vomiting has never been a symptom of the case. The bowels have been regular, but a decided loss of appetite has existed. Suffered six months ago from hemorrhoids. Emaciation has been marked. Two years ago the patient weighed one hundred and eighty-five pounds, his present weight is one hundred and forty-five pounds.

The present condition of the patient, as revealed by his facial expression, is that of anxiety rather than of suffering. The skin is of a sallow hue; lips pale. The nostrils play freely during the respirations, which number thirty per minute. Patient walks with difficulty and is unable to assume the recumbent posture at night. Physical examination reveals no abnormity of the thoracic viscera. The upper portion of the abdomen is greatly distended, particularly in the right hypochondrium. Running from the umbilicus towards the iliac fossa and towards the chest are numerous large varicose veins. Palpation reveals, occupying the upper portion of the abdominal cavity, a firm mass which moves with respiration and is absolutely smooth upon its surface. Measurements of abdomen: at umbilicus, forty-two and one-half inches; at greatest prominence, three inches above, nearly forty-five inches. Percussion elicits a flat sound extending in right mammary line from the fourth rib to the level of the umbilicus; and in the axillary line to within two inches of the iliac crest, in the median line to the umbilicus. In the left mammary line it extends two inches below the margin of the thorax. The lower portion of the abdomen yields normal resonance. Palpation over this region revealed an absolutely smooth surface and unmistakable fluctuation over the region of greatest enlargement. Repeated auscultation failed to reveal anything like a vascular growth. The needle of an aspirator was introduced here, and two ounces of fluid withdrawn. Chemical and microscopical investigations of this fluid by Drs. Kebler, French, Eichberg, and Forchheimer showed that it contained large numbers of liver-cells in diverse stages of disintegration, numerous red and white blood-corpuscles, crystals of tyrosin and albumen.

All these studies of the tumor led us to the conclusion that it must be intimately related to the liver, if not an integral part of it. For a basis of diagnosis there were but two possibilities, between which a positive final diagnosis could not and was not made. These two lesions were echinococcus and malignant disease of the liver. The age of the patient, the absence of marked cachexia, of ascites, and of pain; the slow growth of the tumor, its even surface; fluctuation; the absence of primary malignant disease in other parts, and the non-implication of the lymphatic glands rendered the presence of a malignant growth exceedingly improbable.

The symptoms all pointed more directly toward an uncomplicated echinococcus cyst, the turbidity of the fluid withdrawn being due to inflammatory changes and hepatic detritus.

At the urgent request of the patient, whose life was useless and a burden to him, and with the consent of his family, an exploratory incision was determined upon. This was made in the presence of Drs. Whittaker, Palmer, Kebler, Eichberg, Ravogli, and Krouse. The patient was anæsthetized, and an incision four inches in length was made over the greatest prominence in right hypochondrium. A few ounces of serous fluid escaped. The surface of the liver lay exposed, smooth, glistening, and free from adhesions. The fluctuation was now quite superficial. After due consultation it was decided to open the cyst. The surface of the tumor was firmly fixed to the edges of the incision by a number of silver wire sutures. The exposed surface of the growth was divided by the thermo-cautery. A half-pint of clear fluid escaped and was followed at once by the discharge of a soft friable substance, like disintegrated brain-matter. The hemorrhage attending this discharge was alarming. The finger introduced felt a large cavity filled with this same detritus.

The diagnosis was no longer questionable. Recognizing the malignant character of the growth and appreciating the uselessness of further procedures, the cavity was plugged with sponges covered with boracic acid, and the wound dressed. Whiskey, morphia, and ergotin were freely administered during the following night.

On the day after the operation, the dressing became stained with blood and was removed, but the sponges were not disturbed. The patient complained of no pain or tenderness. The abdomen below the tumor was soft. The internal treatment was continued. Forty-eight hours after the operation the sponges had to be

removed because of the offensive odor emanating from the discharge. This was done with little loss of blood. On the evening of the third day, the condition of the patient became much worse; his extremities were cold, his face was pinched and covered with a cold perspiration; pulse 130 and feeble; consciousness still present, and pain not complained of. Seventy-six hours after the operation the patient died.

The report of the *autopsy* by Dr. F. Kebler, embraced the following: The body was emaciated; rigor mortis pronounced. A bloody fluid containing gray friable masses of tissue, giving a greasy feel when crushed between the fingers, flowed from the wound in the hypochondriac region. On section, the diaphragm was found to extend as high as the third intercostal space. The liver appeared to contain an enormous tumor, and extended across the entire width of the abdomen. When about to remove it, there was found attached to it and extending from the under surface of its right lobe, a cystic tumor, reaching as low as the umbilicus. The tumor was about twice the size of an adult head. The capsule had become so intimately blended with Glisson's capsule as to leave no groove to indicate where liver ended and tumor began. Careful examination, however, showed the margin of the liver about one-half inch below the border of the ribs. The tumor was covered over by peritoneum reflected from the right side of the spinal column in the region of the right kidney. The lower part of the tumor was solid and nodular, of a grayish color, rather soft, and containing in various parts extravasated blood. Above and overhanging the solid part was the cystic portion. The surface of this was smooth. The internal surface was rough and uneven, due to the presence of red and gray friable matter like that which presented at the external wound. In places the cyst-wall was very thin. The edges of the incision through the abdominal wall were united to those of the corresponding incision in the tumor by young, easily broken-down inflammatory adhesions, which completely encircled the incision. The peritoneum presented no evidence of inflammation except that just referred to. The under surface of the right lobe of the liver was infiltrated by the tumor to the depth of about one-third or one-fourth of an inch. The abdominal organs were anæmic, with the exception of the right kidney, which was enlarged and hyperæmic.

Microscopic examination of the tumor revealed that it was a mixed-celled sarcoma, consisting of small and large round- and spindle-cells, imbedded in a clear, homogeneous basis substance, in which were found bloodvessels with thin walls, and here and there extravasated blood. The contents of the cysts consisted of red and white blood-cells, a large amount of granular detritus. and large, free, granular, nucleated cells. In the opinion of the pathologist, the tumor sprang from the region above the right kidney, then extending upward, attached itself to the liver, infiltrated its substance, and, finally, by its weight, pulled upon the right lobe in such a way as to cause its border to become exceedingly thin.

The speaker said, further, that in the consideration and unbiassed appreciation of this case, a number of leading features should be taken into account, viz., a positive diagnosis was not made prior to making the incision; this incision was intended to be exploratory. After the incision, the surface of the tumor resembled so closely hepatic tissue that no one doubted its identity. Even at the autopsy the same tissue was at first mistaken for liver, and it was only microscopic examination that revealed the fact that the incision had been made through the cystic wall of an enormous neoplasm. The liver appeared as an enormous viscus, filling almost the entire abdominal cavity, and no suspicion of a tumor arose until the pathologist, with a view of removing the liver, raised its lower margin, when the neoplasm attached to its under surface was discovered. Springing from the loose connective tissue, or from a lymphatic gland behind the peritoneum and above the kidney, this new growth encroached upon the right hepatic lobe, displacing the entire viscus to the left and at the same time tilting it upon its transverse axis in such a manner that its upper surface was directed forward.

The post-mortem examination, he said, revealed to his entire satisfaction the applicability of the *technique* of the operation practised, to cases of hepatic abscess, cysts of the liver or pancreas, and even of the kidney. Not a sign of peritonitis was present, and no blood was found in the peritoneal cavity. The margins of the abdominal wound were everywhere adherent to those of the cyst-wall, and none of the cystic contents escaped into the peritoneal cavity. While in this case the operative procedures hastened death, the result cannot be attributed to the character and *technique* of the operation.

In this case, the diagnosis of retro-peritoneal sarcoma, although considered, was excluded because, first, this disease, unconnected with the kidney or supra-renal capsule, is exceedingly rare. Of eight hundred and ninety-four sarcomata tabulated by Gurlt (Langenbeck's *Arch.*, 25, 436), only one sprang from the retro-peritoneal connective tissue. Prior to Lobstein's investigations, nothing was known concerning them. To this investigator and to Virchow we are indebted for most of our knowledge on the subject. These tumors are mostly solid, and the reporter had been able to find in literature but one retro-peritoneal sarcoma that had undergone cystic degeneration. In this case, which was successfully operated upon by Czerny (Langenbeck's *Arch.*, 25, 869), the tumor occupied the central portion of the abdomen, and over its free margin the liver could be distinctly felt. Aspiration was also practised, and unmistakable evidences found of a sarcoma undergoing myxomatous degeneration. Upon this the diagnosis was based. Again, in this case the growth did not follow the lines of growth common to those of the kidney, as sarcomata springing from this neighborhood usually do. Growing forwards and downwards, they displace, as Simon has shown, the colon to the median line. They are fixed to, and unaffected by movements of the diaphragm. Both of these signs failed in this case.

Fortunately, the difficulties which surrounded the recognition of this case, the speaker said in conclusion, are not frequently encountered. That they do, however, present themselves at rare intervals is only a more cogent reason that individual cases, whatever their termination, should be published, in order that the profession may be profited by the accumulation of individual experience. In the discussion that ensued, the following remarks were made:

DR. J. T. WHITTAKER said that the point of especial interest to him had been the diagnosis. There seemed to have been no question in the minds of those who examined the case previously, or at the time of operation, that the tumor was situated in the right lobe of the liver. As already stated, the diagnosis was narrowed down to two things—echinococcus and cystosarcoma. The symptoms rather favored the diagnosis of an echinococcus cyst. The tumor had existed two years without causing any pain until within a week or two preceding the operation. This slow growth, the absence of marked cachexia, of pain, or of hemorrhage from the bowels, and the presence of fluctuation, together with the location and appearance of the growth, all seemed to indicate an echinococcus tumor. He was not willing, he said, to accept the diagnosis of a cystic sarcoma of the liver without the recognition of

a sarcomatous growth elsewhere. Two or three punctures had been made, as stated in the essay, and a fluid withdrawn, which, while it was by no means characteristic of a hydatid cyst, did not present features that would necessarily exclude it. The fluid obtained was turbid, sanguineous, contained flocculi, and gave the reactions indicative of albumen. It contained no hooklets. This, however, would not exclude the possibility of a hydatid tumor, for in the majority of cases they are not found. The presence of albumen was expected, inasmuch as blood was present. In view of these facts, the speaker believed that an exploratory incision was not only perfectly justifiable, but called for. But when the incision was made, the smooth, glistening surface, with the color and feel of liver-tissue, made the diagnosis as uncertain as before.

The nature of the tumor could not be made out until it had been entirely removed from the body. Perhaps, if the microscopic examination had been carried a little further, something characteristic of a sarcomatous growth might have been found. The pathologists could not make a diagnosis until the tumor was removed, and it is no wonder the physician and surgeon should not entirely succeed.

The speaker believed this to be a case in which a diagnosis *intra vitam* was impossible, and he felt that every step had been taken in the interest of the patient. The symptoms had been summed up, repeated aspirations had been made, the contents of the aspirator subjected to microscopic examination by several competent observers, and finally an exploratory incision had been made. But the case was surrounded with such inherent difficulties that even upon the post-mortem table, after laying open the abdominal wall, the character of the growth, or even its exact situation, could not be determined.

Another interesting subject, he said, was the etiology of sarcomatous neoplasms. The development of tumors in regions like this, where no injury could be received, he thought, added strength to the theory of Cohnheim, that such growths spring from islands of embryonic tissue remaining undeveloped after the maturity of the organs and tissues for the formation of which they were intended. The experiments of Zahn lend support to this view. This observer found that, while mature tissues, cartilage, bone, etc., could not be transplanted, immature tissues, periosteum, deep layers of epithelium, could be made to grow when transplanted. Leopold has since transplanted, in this way, not only parts, but whole fœtal tissues and organs, as the whole heart. In one instance, where he had inserted bone tissue into the aqueous humor, growth occurred to such extent as to destroy the whole eye. It is at least pleasing to have a theory or a rational hypothesis in illumination of a subject so obscure.

DR. FORCHHEIMER stated that he must correct the author of the paper in his statement that he had pronounced the cells, seen in the fluid sent him for microscopic examination, liver cells. He was always opposed to positive statements, with regard to the character of isolated cells. The fluid sent him was a turbid sanguineous fluid containing flocculi and shreds of tissue. Under the microscope he found numerous red blood-corpuscles, quite a number of leucocytes, cholesterine crystals, and numerous cells in an advanced stage of fatty degeneration. In regard to the pathologist's report, he said that this tumor must have differed greatly from the sarcomata usually found originating in the retro-peritoneal glands, inasmuch, as it was a mixed sarcoma containing both round- and spindle-cells. As a rule, he said, and almost without exception, these tumors were made up of large round cells and giant cells, growing rapidly, but he had never seen one containing spindle-cells.

DR. RANSOHOFF, in conclusion, expressed regret that more had not been said with reference to the diagnosis of cases like the one reported. He thought the case reported differed widely enough from the recorded cases of cystic sarcoma in this situation to be of interest. They usually develop with great rapidity, proving fatal in a short time. In a case which he had seen with Dr. Bramble, the patient suffered lancinating pains in the lower extremities, and had previously been treated for rheumatism and neuralgia. A fluctuating tumor twice as large as a fœtal head was found, which proved, upon autopsy, two months later, to be a round-celled sarcoma. The entire duration of that case was only four months. With regard to the microscopic diagnosis of such tumors, he said more attention ought to be paid to such examinations. But in the case reported he had himself examined the fluid, and could confirm the statement that it contained nothing characteristic except shreds of tissue undergoing fatty degeneration. Could a portion of the solid tumor have been removed, a diagnosis would doubtless have been made. Where portions of a tumor can in this way be removed and examined, the speaker considers the use of the microscope invaluable. An inaccuracy of diagnosis, he said, had been committed in considering the tumor as situated in the liver instead of behind it, and involving it only secondarily.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 15, 1883.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D., IN THE CHAIR.

AFTER the reading of the minutes, DR. F. V. WHITE, the Statistical Secretary, announced

THE DEATH OF DR. J. MARION SIMS,

for many years an honored Fellow of the Academy.

THE PRESIDENT, in speaking of this sad occurrence, said that by the death of Dr. Marion Sims the Academy of Medicine and the profession of New York, and, indeed, of the whole country, had lost its most brilliant and original genius in the department of surgical gynecology. If circumstances had forced him into other branches of surgery, his promptness and fertility in practical procedure, his intuitive power of conception of new means to secure any desired result, his endowment of invention, and his wonderful mechanical adroitness, would undoubtedly have secured for him equal eminence in any of its departments. No one, he thought, could be compared to him in his own special field except the late Sir James Y. Simpson, whom, indeed, he closely resembled in many respects. The resemblances of these two great men were much more numerous and striking than their points of contrast. To speak of the greatest achievements of each, the one had won for himself imperishable fame by his courage and ardent zeal, carried almost to rashness, in successfully introducing the use of anæsthetics for the relief of the agonies of parturition, and the other by devising new methods of physical exploration, and new surgical procedures. Both men were incessant, zealous workers, who for many years were constantly making contributions of positive worth to the store of knowledge of the profession. The former added more to scientific literature, and the latter more to the practice of his art.

In concluding, Dr. Barker announced that he would appoint Dr. Thomas Addis Emmet to read a memoir of Dr. Sims at the first meeting of the Academy in January.

DR. FRANCIS DELAFIELD then read a paper on

TYPHOID FEVER IN NEW YORK.

All the members were interested at present, he said, in the study of typhoid fever, as all had been engaged during the past year in treating a constantly increasing number of cases of the disease. It would, therefore, be of some service to collect such facts in regard to typhoid as it existed in New York, as were of practical import. Statistics, although dry, were sometimes wholesome and necessary. As physicians went about seeing and treating disease, the impressions which they gather are not always correct. The importance of certain symptoms, the efficiency of special methods of treatment, the relative number of cases and such like points were apt to assume too great prominence; but when we looked back afterwards over the whole field, we were enabled to correct our errors and obtain a much more accurate view of the subject engaging our attention.

The records of the Board of Health for a number of years showed that for several years preceding 1863 the yearly mortality from typhoid fever averaged from one hundred to two hundred cases. Between 1863 and 1866, when typhus fever prevailed in New York, the number of deaths from typhoid ran up to from five hundred to six hundred cases a year. Since then the deaths from it had ranged from two hundred to four hundred a year. In 1879 there were one hundred and seventy-eight deaths; in 1881, four hundred and forty-six deaths; and in 1883, up to October 1st, two hundred and seventy-four deaths.

In New York, as in most other places, typhoid fever was most prevalent at the end of summer and beginning of autumn, or during the months of August, September, and October. The number of cases was then the largest, but no month of the year was exempt from the disease. In the various hospitals in New York in which typhoid fever patients were admitted, there were treated, from January 1, 1878, to October 1, 1883, thirteen hundred and five cases. A review of these would, therefore, show the hospital experience with the disease during this period. In the different years included in it the percentage of mortality, as well as the number of cases treated, had varied, as shown in the following table:

Year.	Number of Cases.	Percentage of Deaths.
1878, ...	124	27
1879, ...	114	20
1880, ...	110	30
1881, ...	319	22
1882, ...	313	23
1883 (to October 1st), . .	190	26

From this it would seem that the highest rate of mortality occurred in 1880, and the lowest in 1879.

As to the age of the patients, an allowance was to be made for the fact that, as a rule, the population of the various hospitals was made up almost exclusively of adults. The figures were as follows:

Between the ages of	5	and	10	years,	49 cases.
" "	10	"	20	"	336 "
" "	20	"	30	"	604 "
" "	30	"	40	"	186 "
" "	40	"	50	"	77 "
" "	50	"	60	"	16 "
" "	60	"	70	"	2 "
Over the age of 70 years,					4 "

The ordinary rule in typhoid—of preferring young adults—was, therefore, observed, nearly one-half of the entire number of patients being between the ages of 20 and 30.

As regards that most important consideration, the etiology of the disease, Dr. Delafield remarked that he had very little to say. Many of the cases originated outside of the city, and of the origin of cases in New York it was difficult to speak with any certainty. Perhaps the investigations that were at present being made by the Board of Health might throw some light on the subject.

In the autopsies recorded, the regular intestinal lesions of typhoid fever were observed, the pathological changes, even in the worst cases, being confined to the agminated and solitary glands. In some epidemics the large infiltration of the walls of the intestines was wanting. Perforation of the intestine was noticed in only a small number of cases. In two of these the perforation was through the wall of the *appendix vermiformis*. The colon was involved in only a few instances. In only one case were the multiple new growths of lymphatic tissue, sometimes met with in the stomach in typhoid fever, seen. The mesenteric glands were found in a swollen condition in all the cases, the amount of the swelling varying with the gravity of the other lesions. Suppuration of the mesenteric glands, however, was seen in only two cases. The spleen was soft in all the cases. In some it was enlarged, in others of normal size, and in still others, even smaller than normal. In a single case (that of a boy eight years of age), rupture of the spleen occurred, with a large extravasation of blood into the peritoneal cavity. Suppuration of the parotid gland was not seen in any instance. The liver was found enlarged in many cases. The kidneys, also, often exhibited swelling, with degeneration of the epithelial cells. In such cases there was sometimes albumen in the urine during life, and sometimes not. The heart was firm, and with normal muscular structure, in the majority of cases. The lungs exhibited a variety of changes, though the evidences of severe bronchitis and bronchopneumonia were seen in only a few cases. Lobar pneumonia existed in two cases. Hypostatic congestion of the posterior portions of the lungs was very common; but extreme hypostatic congestion was not frequent. The voluntary muscles of the abdomen exhibited the characteristic granular and waxy degenerations in very few cases. There were no lesions in the brain. It was evident, therefore, that the anatomical type of the disease had not been a severe one, neither the characteristic and ordinary, nor the accessory lesions being more than fairly marked.

In studying the symptoms that had characterized typhoid fever of late in New York, Dr. Delafield had collected the data of one hundred and two cases, occurring during the last five years. All were undoubted cases of the disease. A distinct prodromic period was recorded in only eighteen of the cases, and in all of these the symptoms were much the same. Sometimes bronchitis was among them. This period varied in duration from four days to several weeks.

The character of the invasion was ascertained in eighty-three cases. In thirty-seven of these a chill occurred on the first day. It was in some cases mild, and in others severe, and was sometimes repeated on successive days. It was followed by febrile movement, which was usually accompanied by headache, nosebleed, diarrhœa, and other symptoms. There were forty-four cases altogether in which diarrhœa was one of the first symptoms. In three there was blood in the passages from the beginning. In fifteen headache and fever were the first symptoms; and in six bronchitis was the most prominent trouble during the first week. Pain in the right iliac fossa or over the abdomen was noted in a number of cases at an early period, but it was often difficult to ascertain with certainty whether this symptom was present or not. In some of the

cases it could not be ascertained just how or when the disease commenced.

In regard to the temperature during the first week, this was the period in which the record was most incomplete. In the cases where it was noted during the first week it did not rise in the regular way, which was characteristic of the schematic curve of typhoid fever, but was more or less irregular in its variations. It had been repeatedly noticed that the transfer of the patient to the hospital often produced a temporary increase in the temperature, so that this was sometimes higher on the day following admission than at any other time during the course of the fever. In some cases there was a sudden fall of the temperature during the first week, lasting six, twelve, or twenty-four hours. In others there were morning chills, followed by afternoon fever, and this by sweating; the whole being repeated several times.

In the second week, the temperature approached more nearly that of a regular continued fever. In some cases there was a decided remission in the morning (sometimes the thermometer indicating only 99°); and in others the morning temperature was higher than the evening. In some cases convalescence was established after the fifteenth day. In others there was a temporary remission in the fever at this period, and then the disease would go on for several weeks without abatement. In fatal cases the temperature was sometimes highest a day or two before the termination of life.

In the third week the course of the temperature was much the same as in the second; while in the fourth week there was usually a more decided fall in the morning. In some cases, the temperature after falling for two or three days in succession, would rise again and continue high for one or two weeks longer. As a rule, the temperature varied according to the severity of the disease; but there were many exceptions to this. There were mild cases in which the temperature was from 103° to 105°, and severe cases in which it was from 100° to 103°. The effect of a high temperature upon the patient's sufferings varied very greatly in different instances, some bearing it with apparently very little discomfort. The pulse varied at first from 80 to 120. In the third week it was apt to be more rapid, and was sometimes dicrotic. It was sometimes both full and slow. Generally a very rapid pulse was an unfavorable sign, but this was not invariably the case. In the patients who died with low temperature, the pulse was usually rapid and full. The appearance of the facies was usually characteristic of the disease. The tongue, as a rule, was coated down the centre with a thick white fur, and afterwards became brown and dry; or it remained clean from the first, but became dry and fissured. The moistening of the tongue was generally one of the first signs of the breaking up of the fever. Delirium was well marked in forty-one cases, and was worse during the night than in the daytime. It was sometimes very severe, and cases are on record in which it was so violent that it was mistaken for acute mania, and the patient was sent to an insane asylum instead of a hospital.

Diarrhœa existed in eighty-one cases. In forty-four it commenced at the outset, and in fifty-one continued throughout its course. Constipation of a well-marked character was noted in eighteen cases, and it was apt to be associated with excessive tympanites. The characteristic eruption of typhoid fever was noted in forty-four cases, but Dr. Delafield thought it was probably present in a larger number than this, but had been overlooked. During the present autumn he had noticed that the eruption was considerably more common than had usually been the case in New York for the last few years.

He next spoke of the complications met with. Hemorrhage from the bowels was noted in twenty-three of the one hundred and two cases. In six of these the hemorrhage seemed to be the immediate cause of death. The characteristic hemorrhage of typhoid fever, resulting from ulceration of the intestines, was most frequently met with in the second week of the disease. In three cases at the very onset of the attack there were diarrhœal passages mixed and streaked with blood; but here, of course, the hemorrhage could not have been the result of ulceration. In one case the intestinal hemorrhage was accompanied with bleeding from the gums and other parts of the body, and was, therefore, apparently due to a general hemorrhagic tendency. In two cases there was a constant bloody discharge from the bowels, like that which occurred in cancer of the rectum, and in both instances it occurred late in the disease (the sixth week.) In those cases in which the characteristic hemorrhage of typhoid was noted there was usually a well-marked fall of temperature within a few hours after its occurrence. There were, however, many exceptions to this. As had been remarked, the hemorrhage proved directly fatal in six cases, and it was always an alarming symptom. Of the twenty-three cases in which it was noted, only nine finally recovered.

In three cases a well-marked pustular eruption broke out all over the body, the pustules often amounting to small abscesses, and in five cases there was suppurative inflammation of the middle ear. There was severe pharyngitis with false membranes over the pharynx and tonsils in one case (during the first week), and a moderate degree of catarrhal pharyngitis was met with in a large number of cases.

Bronchitis of severe type or broncho-pneumonia occurred in twenty-four cases. In some of them the symptoms connected with the bronchitis were more severe than those of the fever, and in some the bronchitis was the immediate cause of death. Slighter forms of bronchitis were very common. Lobar pneumonia was seen in two cases, and in both it was apparently the cause of death. Enfeebled heart-action was frequently noted, and in one case several attacks of syncope occurred.

Peritonitis was noted in only four of the cases. In two it was caused by perforation of the small intestines by ulceration, in one by perforation of the *appendix vermiformis*, and in one was due to inflammation of the mesentery. All four of the cases proved fatal. Dysentery was noted in five cases, four of which recovered after lasting a number of days. In the other the patient died.

Of the cases which recovered (exclusive of those in which relapses occurred), the duration of the disease was ascertained in sixty-one cases. Of these, one recovered in sixteen days, four in eighteen days, six at the end of the third week, nineteen at the end of the fourth week, twelve at the end of the fifth week, four at the end of the sixth week, four at the end of the seventh week, one at the end of the eighth week, nine at the end of the ninth week, and one at the end of the tenth week The largest number of recoveries occurred, therefore, at the end of the fourth and fifth weeks. In cases which lasted longer than the fifth week there were often periods when the temperature fell and, after remaining reduced for a time, went up again.

Well-marked relapses were observed in only seven cases; all of which recovered. In three of these the interval of convalescence commenced in the fourth week and lasted from five to fourteen days. In three cases it occurred in the sixth week and lasted from five to thirteen days, and in one case in the tenth week, lasting five days.

Of one hundred and two cases, thirty-four proved

fatal. In fifteen death seemed to be directly due to the disease itself. In most of them the temperature ran high, ranging from 104° to 107°. The high fever was not continuous, however, and did not extend up to the time of death. The pulse was feeble, and usually rapid. Six patients died of hemorrhage, one of syncope, on the twenty-eighth day, four of peritonitis, three of bronchitis or broncho-pneumonia, two of lobar pneumonia, one of rupture of the spleen, and one of dysentery occurring during convalescence. In one case death occurred from collapse (the temperature falling to 95° in the rectum), after a very thorough sponging with ice water and lumps of ice. In eighteen cases, therefore, death was due to complicating conditions.

In regard to the treatment, Dr. Delafield had endeavored to gather the prevailing ideas at the various hospitals. In mild cases, as a rule, the patient was simply put to bed and placed on a milk diet, and no further treatment was attempted. In some hospitals peptonized milk was preferred. Alcohol in some shape was given by some physicians in all cases without exception. By others this agent was reserved for cases with feeble heart-action. Besides alcohol, digitalis, convallaria, and caffein were employed as heart tonics. In some hospitals quinine was given in nearly every case. In others it was resorted to only when the temperature rose as high as 103°, and in still others it was scarcely used at all.

General bathing seemed to have been almost abandoned in New York during the past year, although before that it had been used to a large extent. Sponging the whole surface of the body with water, or with water and alcohol combined, the Kibbe fever-cot, and the cold pack were still used to some extent in some hospitals; but in others the use of cold water in any shape as a means of reducing temperature had been entirely abandoned.

For tympanites, turpentine given internally and applied locally, continued to be the standard treatment. For intestinal hemorrhage, opium and ergot were used. For sleeplessness and restlessness, opium was used with considerable freedom. When diarrhœa was troublesome, opium either alone or combined with bismuth and pepsin, was given, and in some hospitals a solution of acetate of aluminia was resorted to. In one institution large doses of calomel were given if the disease was seen in its early stages, with the idea of aborting it. Salicylate and benzoate of soda, tincture of iodine and carbolic acid combined, and similar agents were occasionally tried with the idea of counteracting the typhoid poison, but, as a rule, were but very little used.

THE PRESIDENT thought that all would be astonished to find how many cases of typhoid there had been in the city during the last few years. Dr. Delafield's paper seemed to him to be the most exhaustive analytical paper on this disease since those of Murchison, and he would simply touch upon a few points which had struck him during the reading of it, and which might afford profitable topics for discussion. In the *first* place, the rate of mortality seemed to be quite high, as compared with that of the disease in other places and periods. Thus, during twelve years, according to Murchison, the average mortality from typhoid in the hospitals of London was twelve per cent. *Second.* The small proportion of cases in which there was a prodromic period. This was probably due to the fact, however, that in hospital patients it was often difficult to obtain satisfactory information on such a point as this. *Third.* The fact that the degree of temperature was not by any means always a measure of the severity of the disease. This point had attracted his attention for several years past. *Fourth.* The larger proportion of cases in which diarrhœa appeared as a symptom during the first week. *Fifth.* The percentage of deaths from hemorrhage, which corresponded with his own experience.

DR. A. L. LOOMIS said that he had been anxious to know what definition Dr. Delafield would give of typhoid fever. He had given a very careful retrospect of this disease as it had appeared in our hospitals during the last few years. He had not, however, in this carefully prepared record of the characteristic symptoms of typhoid fever as seen in New York, described the typical symptoms of typhoid fever as we had been led to suppose that it existed in other countries. The description of Liebermeister, for instance, as given in Ziemssen's *Cyclopedia*, would not tally with that of Dr. Delafield. The question came back to us, therefore, What is typhoid fever? Was it a specific fever, originating from a specific cause, characterized by specific symptoms, and marked by specific pathological lesions? Among the chief characteristic symptoms attributed to it might be mentioned a typical range of temperature, as follows: A gradual rise during the first week; stationary temperature during the second week; remittent during the third week; and intermittent during the fourth week. Such a range as this, however, had not been described in the paper of the evening, nor had he seen it in any of the cases of typhoid which he had met with in New York.

The second characteristic symptom described in the books was the eruption, appearing on the seventh or eighth day, each spot lasting for three days, and one crop following another in regular succession for two weeks. Here, however, the eruption was seen in hardly half the cases, and in his own cases it had been the exception. When it was present, it appeared late, and was not often the characteristic rose-colored eruption, while the spots might last for three days, or six days, or indefinitely. The third supposed characteristic symptom was diarrhœa of a "pea-soup" character. But diarrhœa was frequently absent, and that described by Dr. Delafield (and usually met with in typhoid fever here) had nothing characteristic about it.

Dr. Delafield had avoided one very difficult point, and that was the etiology of the disease. Now was this fever prevailing in New York of spontaneous origin, or did it depend on a specific germ, which had to be developed and undergo certain changes before it became infectious? In other words, could we have typhoid fever without a typhoid germ? Of course, this was a very difficult matter to investigate. Dr. Loomis then read a *résumé* of the cases of typhoid which had been under his care at Bellevue Hospital since the last week in September. They were seventeen in number, and of these, four had proved fatal. In three of these, however, the patients died within three days after admission. The highest range of temperature was 105⅞°, and the average range was 101¼°. The eruption appeared in four cases, and diarrhœa in four. Constipation was present throughout in thirteen cases. Hemorrhage occurred in two cases, and peritonitis in two. In each of the latter there were ulcerations involving the large as well as the small intestine. In one case, there was complicating dysentery during convalescence.

From the characteristics of typhoid as seen here, therefore, he thought it was necessary either to regard the disease simply as a continued fever, with typhoid symptoms, or else to give up all idea of there being such an affection as typhoid fever. In New York, at least, there was no longer such a thing as a specific typhoid fever, or else the majority of the cases described by Dr. Delafield were not true typhoid. The so-called typhoid fever seen here did not correspond to the European type, or to that which used to be seen in New

England, although he believed there were some localities where typhoid was endemic. Not long since he had seen in consultation a Connecticut physician, and had inquired of him if he saw much old-fashioned typhoid in his practice now; to which he replied, that the disease was not like what it used to be before malarial fever was prevalent in the community. This, he believed, was the general experience of the profession at the present day, typical cases of typhoid being no longer met with.

DR. FRANK P. KINNICUTT, in referring to the constipation met with in typhoid, remarked that several years ago Sir William Jenner had called attention to the fact that a single deep ulceration of Peyer's patches might cause a paralysis of the bowels. Of course, however, there were other causes of constipation also. With reference to ascertaining the frequency of constipation, he had examined the records of all the cases of typhoid fever treated in St. Luke's Hospital in the summer and autumn months of 1882 and '83. In 1882 there were twenty-six cases, with seventeen recoveries and nine deaths; and in 1883 there had been eighteen cases, with fourteen recoveries and four deaths. Of the cases occurring during the present year, constipation had existed in seven, and diarrhœa in nine. Constipation was always a disadvantage to the patient, and was oftentimes of dangerous import. It was therefore necessary to adopt measures to relieve it, and as he did not think it right to give laxatives by the mouth, he was in the habit of using small enemata of thin gruel, frequently repeated if necessary. This answered perfectly, and was a better plan, he thought, than to give larger enemata at longer intervals.

In regard to relapses, he said he was convinced that these were wholly independent of any error of diet, and were unavoidable, as there seemed to be a distinct form of relapsing typhoid, in which a portion of the poison seemed to remain latent for a time, as pointed out by Da Costa. In the treatment, the question of the advantage of alcohol was a very difficult one to decide. The symptoms were the best guide, and his own rule was to withhold it until the third week, and then only give it when absolutely necessary. While alcohol might do good in some cases with delirium, he had seen two instances in which marked delirium and tremor had been wonderfully relieved by the withdrawal of alcohol, which had previously been given freely. In general, simple rest was the best treatment, medical treatment being reserved for special symptoms.

DR. EDWARD G. JANEWAY believed it a mistake to consider typhoid fever more prevalent of late years in New York than it had been formerly. The statistics of the Board of Health showed that neither absolutely, nor certainly in proportion to the population, were there more cases of typhoid now than before. He differed from Dr. Loomis, and believed that the typhoid fever seen in New York was identical with that described as existing in Europe, because the lesions were the same. If there were discrepancies, their cause was to be looked for in other directions, and one great cause of discrepancy, he thought, would be found in the treatment adopted here. Quinine was almost universally given, and many physicians were in the habit of prescribing it in large doses in the beginning of typhoid in order to make a differential diagnosis between it and malarial fever. Both Liebermeister and Murchison admitted that there were atypical cases, such as were frequently met with here. The etiology of the disease was often very difficult to trace, but his experience, especially in epidemics occurring at the Roman Catholic Half-orphan Asylum, the Deaf and Dumb Asylum, and Princeton College, had convinced him that the disease was of specific origin. In these different epidemics the symptoms varied very greatly, but the lesions were always the same. At the Deaf and Dumb Asylum diarrhœa was the rule, while it was the exception at the Half-orphan Asylum. In one case at the former institution he met with the highest temperature which he ever saw reached without a fatal result, viz., 109°. It was attendant upon the development of pneumonia, and lasted only for a very short time. Typhoid he believed to be a disease which was due to poison capable of producing a fever which might last from three days to eight or ten weeks. In all outbreaks of the disease there were cases which lasted only a very short time. As regards certain features of typhoid as it was now found in New York, he had found, like Dr. Delafield, that the eruption was particularly well marked, and he had not seen a case of the disease in an adult which had reached the tenth day in which it could not be detected if careful search was made for it over the abdomen, breast, and back. He had never seen any special difference between city and country cases of typhoid, and thought that the disease as seen in New York was very much like that met with in other places. It was always of interest to try to trace the origin of an outbreak of typhoid, but that it was a very difficult matter was well illustrated in a case which had recently come under his notice. This was that of a pedler who, for a week after typhoid had set in, although suffering from severe diarrhœa, had continued to ply his vocation among the tenement-houses of the city, and it was estimated that it was possible for him to have infected the closets of no less than forty-eight houses during this time. As a rule, it was very unsatisfactory to attempt to trace the disease to milk supply in this city; but in the case of the epidemic at Fort Washington last year, such an origin seemed to be well established. In the outbreak at Princeton, the first six cases occurred in April, and it was found that all the six students had been taking their meals at one house. On investigation it proved that there was a cesspool within forty feet of the well from which the drinking water of this house was drawn. Later on, the disease was spread through the drain-pipes and in other ways.

DR. T. A. MCBRIDE spoke of the cases which he was accustomed to see at the out-door department of the New York Hospital. There were ordinarily diarrhœa and elevated temperature, and on examination he found an enlarged spleen and often an enlarged liver. The spots were almost always present. Some of these cases were sent to the hospital, but many of them did not remain there more than one or two weeks. He had recently had a case of typhoid in which a number of hemorrhages had occurred, and he would like to ask Dr. Delafield how long albumen, unassociated with tube-casts, appeared in the urine after such hemorrhages.

In the treatment he was in the habit of using kairin. In one case he had been unable to employ quinine in any form; and trying the kairin, he had found it to act very satisfactorily. He sometimes used from fifty to sixty grains of it in the twenty-four hours. When the temperature rose to 103°, or higher, his rule was to give seven grains of kairin every hour until it was reduced to 101°. If the temperature was not higher than 102°, he used only three and a half grains every hour until it fell to 101°. Invariably he had found that seven grains reduced the temperature from three-fourths to one degree, and it was seldom necessary to give more than two doses in successive hours. It almost always caused a copious perspiration; and the reason that he made 101° the limit was, that if the temperature was brought lower than this the patient would be apt to have a chill, when the fever would run up again very rapidly. The drug was given in capsules or pills, after

milk or other food had been taken; and he had never seen it produce any unpleasant effect upon the stomach. After kairin had been taken, the urine assumed a greenish hue, and was usually found to contain albumen.

THE PRESIDENT, after brief remarks by Drs. Pinckney and Fruitnight, said that it was his practice never to disturb the bowels when there was constipation until the patient began to suffer from inconvenience from it, and he then gave a single powder of five grains of calomel worked up with fifteen or twenty grains of bicarbonate of soda, which he found of great service.

DR. DELAFIELD, in closing the discussion, said that there was much atypical typhoid in New York. The fact that the disease did not always have typical symptoms was known to all, and this was the very reason why he thought it would be of service to bring these cases together. But, after all, typhoid fever was very much the same as other diseases in the respect that it varied very greatly at different times and in different localities. The lesions were the characteristic feature of the disease, and yet, while they were the same in kind, they differed greatly in degree. He was very familiar with Liebermeister's article on typhoid, as he had translated it for the American edition of Ziemssen, and he thought it was undoubtedly true that he had misled many persons. When he was translating the article, he was struck with the fact that it was unquestionably made up, the author's descriptions being more definite and precise than if they had been taken directly from nature. In short, he had sacrificed truth in order to present a clear and striking picture of the disease. Constipation, he thought, had nothing to do with ulceration of the small intestines, and he doubted whether the diarrhœa depended on the intestinal lesions. The constipation, in all the cases in which he had mentioned it, had been of a positive character, and this he considered a decided evil to the patient, so that he never hesitated to give laxatives during the first week if they were required; after that, enemata were better. He agreed with Dr. Kinnicutt in regard to relapses being independent of incidental circumstances, and with Dr. Janeway as to the frequency of the occurrence of the eruption during the present season. In answer to Dr. McBride's question as to albuminuria after hemorrhage, he said that he had had no experience in the matter, although the kidneys, as he had shown, were exceedingly apt to be affected in typhoid.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Eleventh Annual Meeting, held at Detroit, November, 13, 14, and 15, 1883.

(Specially reported for THE MEDICAL NEWS.)

THE Eleventh Annual Session of this Association convened in the city of Detroit, Mich., Tuesday, November 13th. The place of meeting this year had been held to have about equally balanced advantages and disadvantages as to attendance and increase of membership; the advantage being chiefly in the fact that Michigan is perhaps the best enlightened State in the Union sanitarily, thanks to the work of its State Board of Health, while the fact that transportation facilities to points like Detroit, reached mainly by pool lines, are not afforded, constitutes the chief disadvantage. This view proved correct, and the attendance was about the average of recent meetings.

The experience of the last few years has pretty definitely shown that the southern and southwestern cities are by far the most favorable places for meetings of the Association, those communities being keenly alive to the money as well as the physical value of health.

The arrangements for the meeting at Detroit, having been in charge of an able local committee, of which Dr. Wm. Brodie was Chairman, were very satisfactory, save in the one important particular that Merrill Hall, the place of meeting, can, beyond doubt, establish a claim to having as bad acoustic properties as any hall in the land.

TUESDAY, NOVEMBER 13TH, FIRST DAY.

MORNING SESSION.

The Association was called to order by the PRESIDENT, EZRA M. HUNT, M.D., of Trenton, N. J. After the opening business of the morning, including the Treasurer's Report, which showed a handsome balance on hand, the call for reports of committees brought forward that of the special committee on

CATTLE DISEASE,

by DR. J. M. PARTRIDGE, of Indiana, Chairman, which was brief and unimportant, except as it served as the introduction for several very able papers which followed, upon the subject of cattle disease. Additional interest existed in this one of the four main topics assigned for special consideration at this meeting, from the fact that the Cattle Disease Convention was about to open at Chicago, and that the veterinarian experts of the two rival cattle-disease authorities of the United States, Prof. D. E. Salmon, of the Agricultural Bureau, and Prof. Law, of the Treasury Cattle Commission, were both present.

The first paper of the session was by the former of these gentlemen, DR. SALMON, of Washington, its title being

TEXAS CATTLE FEVER: IS IT A CHIMERA OR A REALITY?

The paper was strong in its construction, clear and logical in its deductions from the data it gave, and will form a valuable contribution to the constantly lengthening chain of evidence which goes to establish the positions taken by Prof. Salmon: that Texas fever *is* a reality; that its origin is confined to a certain belt of territory; that its seeds are portable; and that the danger of its wide extension, except it be carefully and strongly controlled, are great.

There will be, perhaps, many who will join in the dissent expressed by Dr. O. W. Wright, of Michigan, to the postulate of Dr. Salmon: that it must require a disease in an animal (though it might be undeveloped) to produce the disease in other herds.

The discussion of the paper was short, and not important, being briefly participated in by Dr. J. H. Rauch, of Illinois; Dr. Hilary Ryan, of Texas; Dr. Wright, of Michigan; and Prof. Law.

The second paper of the morning, its title being *Swine Plague*, by DR. J. M. PARTRIDGE, of Indiana, was an interesting statement and analysis of the features of this disease, well condensed, but containing nothing specially new. There was no direct discussion of the paper.

The third paper, by DR. W. T. BELFIELD, of Chicago, which was in the form of a report by this gentleman to Dr. O. C. DeWolf, Health Commissioner of that city, was forwarded to the Association by the latter at so late a time that it was not included in the programme of the day, and was read by the Secretary. It was entitled,

SWELL HEAD IN CATTLE.

The true character of this disease, which has recently been very prevalent in the Chicago stock-yards and elsewhere, has been only of late determined, though its prominent features, viz., tumors of varying degrees of hardness upon the jaws, etc., have long been dealt with by veterinarians, and associated with the

lodgment of foreign substances in the jaws, etc. The fungous character of its etiology, the *actinomyces* and their growth, the establishment of the disease as *actinomycosis*, and its relative features in animals and man, were clearly portrayed. It was considered one of the best contributions of the session.

Prof. Law, in the brief discussion which followed, was not ready to admit that the recognition of the actinomycocic character of the disease was of so recent a date as claimed.

The Association took a recess till 3 P. M.

AFTERNOON SESSION.

The subject of malaria, as one of the four principal topics, was assigned to this session, and its consideration was opened by a very long, able, and exhaustive review of

THE ETIOLOGY OF MALARIA,

in a paper by Surgeon GEORGE M. STERNBERG, U. S. Army. This was followed by another on "The Etiological Association of Organic Matter with Malaria," by Surgeon ALFRED A. WOODHULL, U. S. Army, equally careful and elaborate in analysis, and a third paper by Surgeon CHARLES SMART, U. S. Army, on

THE PREVENTION OF MALARIAL DISEASES,

as clear and able in its scope as its predecessors, completed a trio of remarkable papers on the general subject, all by distinguished officers of the medical staff of the army; prepared without coöperation or mutual understanding, from different standpoints, and mainly from different data. That nothing which could be said to be absolutely new to science was presented in these papers is true, but as complete statements of what has been determined in regard to malaria, as setting the stakes of recorded observations, and as showing the routes along which inquiry for the future must be directed, they will stand quite unexcelled if not unrivalled, and in them the medical staff of the army certainly gathered new laurels. The agencies of heat, moisture, and vegetable decomposition received full and elaborate consideration in the several papers, and the low-resistance powers of the system were given credit for the part played by them. Dr. Sternberg expressed himself as hopeful as to the complete solution of the cause of malaria in the not remote future. The data showing the increased percentages of malaria in relation to latitudes was most effectively and logically used. Dr. Woodhull reviewed the etiological power of subsoil and stagnant waters with some detail, and placed some stress upon the probable responsibility of drinking-waters in causing the disease. Dr. Smart coincided with more emphasis in the latter view, and gave some facts in support of the theory. He advised filtration of suspected waters.

EVENING SESSION.

The evening session was devoted to addresses of courtesy, His Excellency, GOVERNOR BEGOLE, of Michigan, welcoming the Association in a remarkably fitting and graceful address, in which he remarked in effect, that so significant and gratifying was the sight of doctors endeavoring to prevent disease, by ministering to which they had their living, that he now only looked forward to a convention of lawyers, intent on preventing litigation, to be prepared to say, like Simeon of old, "Lord, now lettest thou thy servant depart in peace."

DR. WM. BRODIE, of Detroit, was introduced in behalf of that city in the absence of His Honor Mayor Thompson, and made a characteristic speech of welcome. Dr. John Avery, President of the State Board of Health, followed with an address of welcome on the part of the sanitarians of the State, which was graceful and strong.

The President of the Association, DR. EZRA M. HUNT, of Trenton, N. J., then delivered

THE PRESIDENT'S ANNUAL ADDRESS,

which opened with a brief reference to the birth and early work of the Association, followed out graphically the lines of sanitary thought running through the years since its organization, and considered at length the needs and reforms in the sanitary world. The illiberal action of Congress in vital sanitary matters was aptly characterized, and the address, which was replete with historical reference, strong statements of scientific truth, and the analysis of the character of sanitary work, was conceived and delivered in a high and elevating plane of thought.

At the close of the address, the Association adjourned till Wednesday morning.

Immediately upon adjournment, the members proceeded to the Russell House, by invitation of the Local Committee, where a citizens' reception had been arranged. An hour of social converse, followed by an elegant banquet, formed a pleasant feature of the meeting, and was a most enjoyable phase of the hospitality extended.

WEDNESDAY, NOVEMBER 14TH, SECOND DAY.

MORNING SESSION.

After the morning hour, the subject of malaria was resumed. DR. R. D. WEBB, of Alabama, presented a paper, which was read in his absence by Dr. English, of New Jersey, on

CHANGES OF TYPE IN MALARIAL FEVER

in Sumter County, Alabama, from 1833 to 1883.

As its title indicates, it was a synopsis of the clinical observation of fifty years in one locality, and as such was entitled to and received careful attention, and is one of those contributions to the volume of recorded facts from which in time careful analysis will deduce new knowledge.

The Secretary read a series of carefully formulated interrogations on malaria, put by Dr. J. W. Penn, of Tennessee, to answer which would be to settle all the questions involved in its study.

A paper on

THE CLINICAL THERMOMETER IN THE PREVENTION OF MALARIAL DISEASE,

by DR. THOMAS F. WOOD, Secretary of the State Board of Health, of North Carolina, was read by synopsis by the Secretary.

Dr. Wood holds, as the result of his observation, that there is special liability to attacks of malaria on the part of sailors upon vessels lying in the rivers and streams of his State, and that the use of the thermometer, as indicating by the temperature with great certainty the approach of the attack, gives the hint for prophylactic treatment. The evidence was well arranged and of weight.

COL. GEORGE E. WARING, Secretary of the National Board of Health, opened the discussion upon the papers on

MALARIA

by an allusion to the malarial condition prevailing at Washington, and his disbelief that the Potomac marshes causes it.

He was followed briefly by Dr. Gustavus Devron, of Louisiana, who believed that drying up swamp-water set free malarial germs; by Dr. O. W. Wright, Health Officer of Detroit, who thoroughly believed in perfect drainage as the preventive of malaria; by Dr. G. E. Ranny, of Michigan, who expressed his disbelief in

the existence of typho-malarial fever and in the contagiousness of typhoid; by Drs. Wm. Oldright, of Ontario, and Trescott, of South Carolina; by Dr. George M. Sternberg, U. S. A., in remarks intended to supply an omission in his paper; by Dr. M. Formento, of Louisiana; Dr. E. L. Griffin, of Illinois; Prof. V. C. Vaughan, of Michigan, and Dr. P. H. Bryce, of Ontario, the latter of whom advocated the soil germ theory.

DR. W. K. NEWTON, of Paterson, N. J., presented a paper on *Food Supply*, but did not complete it before the noon recess was taken.

AFTERNOON SESSION, WEDNESDAY.

Dr. Newton, of New Jersey, continued the reading of his paper, which was a long and careful compilation of much that is known as to the adulteration of food, and a review of the sanitary and legal bearings of the processes and their results.

In the absence of one of the readers, DR. ALBERT L. GIHON, Medical Director U. S. Navy, followed with a paper on

VITAL STATISTICS AS SANITARY MONITORS,

suggesting certain changes in the registration of statistics, so that better information should be had as to the prevalence of disease, instead of deaths, and of the causes attached.

The subject of the

ADULTERATION OF FOODS

was resumed by a paper on that subject by Prof. A. R. Leeds, of New Jersey, read by Prof. R. C. Kedzie, of Michigan.

The paper and its subject in general were discussed by Profs. V. C. Vaughan, R. C. Kedzie, and T. P. Wilson, of Michigan.

A synopsis of the paper on the *Yellow Fever Epidemic of 1884, in Pensacola, Fla.*, by DR. R. B. S. HARGIS, was read by Dr. Devine, of Louisiana.

A paper on

SCHOOL HYGIENE,

was presented by Dr. Chas. J. Lumly, of Detroit. The paper dealt pleasantly and well with several of the well-recognized forms of error in modern school hygiene, notably the over-length of time required for study per day, the want of ventilation and proper lighting, the too greatly exalted temperature, the enforced stooping posture at the desk, the myopic tendency, the want of physical training, the errors of cross-lights, etc.

Discussion upon the paper was opened by Dr. A. N. Bell, of New York city, special reference being made to the want of closet accommodations. Drs. U. K. Jones, of Massachusetts, J. F. Noyes, Prof. T. P. Wilson, of Michigan, and Dr. A. L. Gihon, U. S. N., participated briefly in the discussion; Drs. Jones, Noyes, and Wilson urging shorter hours, and Dr. Gihon condemning the attention demanded to mental arithmetic.

A recess was taken till 7.30 o'clock.

EVENING SESSION.

The evening session, without being assigned to Physical Culture, opened with a paper of rare excellence by PROF. J. MADISON WATSON, of New Jersey, on

PHYSICAL TRAINING,

and this was followed by a masterly essay on *Physical Culture*, by PROF. D. A. SARGENT, of Massachusetts. The burden of both papers was the necessity of laying broadly and well the bodily basis for the mental superstructure, and then of constantly caring for and strengthening it, as mental processes made larger drafts.

Both papers were considered of a very high type, and were ably supplemented by that of DR. JAMES E. REEVE, Secretary of the State Board of Health, of West Virginia, on *The Eminent Domain of Sanitary Science and the Usefulness of State Boards of Health in Guarding the Public Welfare.*

Dr. Reeve's paper was a scholarly and able inquiry into the relations of the people to the State, the close inter-relation of all parts of the community, and a clear exposition of the necessity of holding State and citizens to a greater responsibility for good health.

THURSDAY, NOVEMBER 15TH, THIRD DAY.
MORNING SESSION.

The greater part of the morning session of Thursday, was devoted to business of the Association.

The Secretary reported from

THE EXECUTIVE COMMITTEE,

with favorable recommendation, several communications received from the Advisory Council. The first was a long preamble and resolutions reciting the importance of governmental stimulus to scientific investigation into the causes and prevention of disease, and in the name of the Association calling upon Congress to appropriate $25,000 for this purpose, to be expended under the direction of the National Board of Health. The second invoked the consideration of Congress in aid of the National Board. The third was a complimentary expression to Surgeon-General Philip S. Wales, of the Navy, for his interest in and aid of the cause of sanitary science by his efforts in behalf of the National Museum of Hygiene. The fourth was in the shape of preamble and resolutions in aid of the Army Medical Library and Museum, asking appropriations from Congress for both, and for the erection of a suitable building for their safe-keeping. With a few emendations all were adopted, as was the recommendation of the Advisory Council that St. Louis be the place of meeting next year.

Under the call for the reports of committees, DR. HENRY P. WOLCOTT, of Massachusetts, Chairman of the Standing Committee on

NATIONAL MUSEUM OF HYGIENE,

submitted the report of that committee, detailing the present very satisfactory condition of that institution, and the hope of the Surgeon-General of the Navy soon to avail himself of much larger accommodations, which will before long be required.

AN INVITATION.

DR. WM. OLDRIGHT, President of the Provincial Board of Health of Ontario, Canada, invited the members of the Association to attend the meeting of the Canadian Sanitary Association, to meet at London on Monday the 19th inst.

Dr. SAMUEL W. ABBOTT, Health Officer of Massachusetts, in behalf of the Committee on

COMPULSORY VACCINATION,

submitted a report from that committee. It combated the idea of any prevalence of transmission of disease by vaccine virus, and strongly upheld the practice of general vaccination.

ELECTION OF OFFICERS.

The nominations of the Advisory Council, acting as a nominating committee, were then reported, and by vote the Secretary was directed to cast one ballot for the several officers named, who were then declared elected, as follows:

President.—Dr. Albert L. Gihon, Medical Director, U. S. Navy.

First Vice-President.—Dr. James E. Reeve, Secretary of the State Board of Health, of West Virginia.

Second Vice-President.—Hon. Erastus Brooks, of New York.

Secretary.—Dr. Irving A. Watson, of Concord, N. H.

Treasurer.—Dr. J. Berrien Lindsley, of Nashville, Tenn.

Executive Committee.—Dr. Thomas L. Neal, Dayton, O.; Dr. J. D. Gatch, Lawrenceburg, Ind.; Dr. Henry P. Walcott, Cambridge, Mass.; Dr. Gustavus Devron, New Orleans, La.; Dr. Charles Smart, U. S. Army; Dr. Henry D. Fraser, Charleston, S. C.

A very elaborate paper accompanied by large diagrams, etc., on *The Removal of Decomposable Material from Households*, by RUDOLPH HERING, C. E., of New York City, was read by Prof. Kedzie, in the absence of the author. It was replete with valuable information for builders and householders, and will form a valuable contribution to the literature of sanitary construction.

DR. WILLIAM OLDRIGHT, of Ontario, Can., read a paper on *Overhead Ventilation of Sewers*. The paper contained practical suggestions for removing safely the sewer-gas from the old combined form of sewers, which the writer illustrated in part by model.

The Association here took a recess until 3 P. M.

AFTERNOON SESSION.

The following gentlemen were appointed as *delegates to the International Medical and Sanitary Congresses, at Copenhagen and the Hague, in 1884:* Prof. R. C. Kedzie, Michigan; Dr. O. W. Wight, Michigan; Dr. Stephen Smith, New York; Dr. Azel Ames, Jr., Massachusetts; Drs. W. K. Newton and E. M. Hunt, New Jersey; Dr. J. T. Linn, Indiana; and Geo. E. Waring, Washington, D. C.

A paper on

THE SANITARY CARE OF HOUSEHOLDS,

by DR. JOSEPH H. RAYMOND, Health Commissioner of Brooklyn, N. Y., was read by Dr. A. N. Bell. The paper contained nothing new, and Col. Waring's criticism that the toleration it permitted of the pan-closet, even though occasionally burned off and varnished, was an error, was evidently approved by many. The subject-matter of the paper was discussed by Col. Waring; Dr. A. N. Bell, of New York; Col. D. P. Haddin, of Tennessee; Dr. Wm. Brodie, of Detroit; Dr. O. W. Wight, of Detroit; Dr. Gustavus Devron, of Louisiana; and the Secretary, Dr. Ames, of Massachusetts. The latter in reply to Col. Waring's advocacy of the separate system, and so the avoidance of sewer-gas in all places, showed the impossibility in many old cities having an expensive combined system and large indebtedness to build new systems; and contended that by proper effort freedom from harm even under such conditions was available.

A paper on *The Drainage of Level Lands, etc.*, by PROF. W. C. VAN BIBBER, of Maryland, was read by title; and one on *Dangers of Fecal Matters Disseminating Disease*, by DR. W. S. ROSA, of Kentucky, was summarized.

A very able and exceedingly interesting account of

PULLMAN, FROM A SANITARY POINT OF VIEW,

by DR. OSCAR C. DE WOLF, Health Commissioner of Chicago, Ill., was read by Mr. John K. Allen, of Chicago. The water, fire, drainage, sewage, irrigation, etc., systems of the place were given in detail, and created a genuine desire for more intimate knowledge of the town on the part of many. If what has been done here can, as appears, be made a success, it is to be hoped that it may prove but the forerunner of many model industrial communities which, with a basis of pure air, pure water, and pure soil, shall permit conditions of life now generally unobtainable by the working classes.

A paper on *Modern Sanitation*, by DR. L. H. MONTGOMERY, of Chicago, Ill., was read by title.

DR. EDWARD H. JANES, Assistant Sanitary Superintendent of New York City, presented a paper on *Typhus Fever in New York City*, which, for want of time, was read by title, and referred to the Publication Committee.

A paper on *Catarrhus Baltimoriensis*, by DR. JOHN MORRIS, of Baltimore, Md., was summarized by Dr. Rohé of that city.

DR. J. N. MCCORMACK, of Kentucky, read a very brief paper on *The Restriction of Smallpox*.

The Secretary read by title a paper on *Preventible Contagious Diseases*, by DR. DAVID FERGUSON, of Detroit.

Dr. Forment, of Louisiana, suggested cremation as a subject for discussion for the next annual meeting.

The Association took a recess until 7.30

THE EVENING SESSION

was opened by an able address by RIGHT REV. HUGH MILLER THOMPSON, D.D., Assistant Bishop of Mississippi, on

SANE HUMANITY.

The address dealt vigorously with the moral features of sanitary duty, and that of man to his Creator to make the best of himself, and was a strong presentation of the obligation of the State and the individual.

DR. FOSTER PRATT, of Kalamazoo, Mich., presented, as the closing paper of the meeting, an almost startling review of

INCREASED INSANITY IN THE UNITED STATES, ITS CAUSES AND SOURCES.

The paper, whose facts and figures were drawn from the last census returns, gave a most interesting and significant showing of the great increase of insantity in this country, and placed its source and cause largely to foreign immigration, much of it alleged to be of deliberate intent to fasten upon this country the burden of support of the imbeciles. In view of the fact that at the coming session of Congress the census returns will come up for much consideration, Dr. Pratt's forcible presentation of the subject is timely, and will not fail to attract attention. The paper, though very long, secured close attention.

At its close, PROF. KEDZIE, of Michigan, offered a preamble and resolutions calling for Congressional action to prevent the

IMMIGRATION OF IMPROPER PERSONS, ETC.

The rules were suspended to allow immediate consideration of the resolutions. A spirited debate followed, participated in by Drs. Wright, of Michigan; Devron, of Louisiana; Walcott, of Massachusetts; the Secretary, and Dr. Gihon, of the Navy.

After some filibustering motions, the preamble, which was thought to state too strongly the degree of trouble arising from immigration, was amended, and then, together with the resolutions, was carried by a very large majority. The force of the resolutions is simply to call on Congress to take some suitable steps to put a stop to the immigration of persons, whether paupers, criminals, or imbeciles, who are almost sure to be added to the troublesome roll soon after, or upon their arrival. There seemed to be a gaining feeling that the consular service should be so enlarged in its force and scope, that insight of this condition might be placed in its charge.

An omnibus resolution of thanks to those by whose services the Association had been benefited was passed unanimously on motion of Dr. Reeve, of West Virginia.

A resolution of thanks for efficient services was given on motion of Dr. Gihon, of the Navy, to Dr.

Ames, the retiring Secretary, who, at the end of his three years' term, declined reëlection.

The retiring President then introduced his successor, Dr. Albert L. Gihon, U. S. N., who, in a few felicitous words, assumed the duties of the office.

The Association then adjourned to meet at St. Louis, Mo., at such date as the Executive Committee shall determine.

CORRESPONDENCE.

AN ANSWER TO "A PROTEST AGAINST THE USE OF THE METRIC SYSTEM IN PRESCRIBING."

To the Editor of THE MEDICAL NEWS.

SIR: In your issue of November 3d inst. appears a letter from Dr. James Orr, of Texas, under the above heading. I do not desire to provoke a controversy, but, as an advocate of the "metric system," I cannot let this statement go unanswered.

Your correspondent is peculiarly unfortunate in the three points which he submits as arguments against the new system, for in each one of them he is in error, and in each one of them is the converse of his conclusion true. He says: "1. In calculating the given quantity of a drug desired in a prescription, it can be done quicker by our or the English weights—grs., ʒ, ℥, etc."

This is true certainly of a physician who knows doses only in the old system. But if he knows the doses in the metric system equally as well as in the old—which is the proper standard of comparison—the metric system is infinitely the easier and quicker method of calculating quantities. Let us take an example. The dose of *morphia* is one centigram (0.01); the dose of *chloral hydrate* is one gram (1.00). We wish to write a prescription which shall contain six doses, of a tablespoonful each. Six tablespoonfuls make one hundred grams. We have

	Grams.	Decimals.	Old System.
℞.—Morphiæ Sulph. . .	0	06	gr. i.
Hydrat. Chloral. . .	6		ʒivss.
Syr. Aur. Cort. . .	25		℥iv.
Aquæ, . . . *ad*	100		℥iij..

What can be simpler than this? There is but one unit, the gram and its decimal parts, written in plain Arabic numerals. It is equally easy to write the same or any other prescription for any number of doses, the only thing requisite being a knowledge of the dose in *metric* terms. Of the difficulty encountered when one does not know the dose in metric terms, but must laboriously translate it from the incongruous weights and measures of the old system, I have nothing to say.

The same ℞. in the old system is given alongside the metric ℞. Who that is unprejudiced can say that it is simpler? There are four different units—grains, scruples, drachms, and ounces—related to each other by different and arbitrary ratios.

Three of them, scruples (ʒ), drachms (ʒ), and ounces (℥), are represented by arbitrary and unmeaning hieroglyphics, and the quantities are expressed in the awkward Roman numerals, instead of the Arabic numerals in common use. Another point which illustrates the superiority of the metric over apothecaries' weights in calculating quantities, is the use of percentages.

In making lotions, collyria, etc., we speak of so much per cent. strength; as a five per cent. solution of carbolic acid for a dressing to a wound.

What is simpler than writing

℞.—Acidi carbolici, ... 5 grams.
Aquæ, ... 100 " —M.
Use as lotion.

Calculate a five per cent. solution in grains and ounces, and see how great is the difference in simplicity and trouble. With just as great ease can *any* percentage be written for.

2. The second point of Dr. Orr is, that there is greater liability to error in the metric prescription than in the old form. If he compares a physician familiar with the old system, writing in the old way, with one who is also familiar with the old, but does not know the new—writing in the metric terms—he is probably right. But such a comparison is unfair. If we compare physicians equally familiar with the system in which they write, the advantage is altogether in favor of the metric.

In the latter there is but one unit; the quantities are written in plain figures and the aggregate shows the proportionate quantity of each. In the former there are as many units as are found in the tables of apothecaries' weights and measures; they are expressed by arbitrary hieroglyphics; quantities are in Roman numerals, and the aggregate does not show the proportion.

How often does it happen that a physician looking over a prescription he has written, finds he has written the drachm mark where he meant scruple, or *vice versâ*.

How is the pharmacist to know which is meant? To be sure it is careless writing, but it occurs continually, as the pharmacist's ℞ files will testifiy. Such a blunder cannot be made in the new system. As to the danger of misplacing the decimal, this is obviated by the use of the decimal line; then if a mistake is made, we have no apology to offer. It is just as reasonable to expect the merchant in his ledger, to charge his customer ten cents a yard for silk, instead of ten dollars, by putting it in the wrong column.

In fact, the decimal system applied to medicine is identical with our cental currency applied to money. It needs no argument to prove that our present money system is preferable to the old-fashioned "fips" (6¼ cents), "levies" (12½ cents), "picayunes," and "York shillings," or that it is far superior to the English system of £, shillings, pence, and farthings. Yet exactly the same differences hold in medicine between the new, or metric system, and the old, or apothecaries' weights and measures. I think, however, no one among us, not even the "oldest inhabitant," would be willing to exchange our dollars, dimes, and cents for the British coinage, or even return to the good old times of Colonial coinage.

The third point of Dr. Orr is that "It takes less time and space to write the old method." The only answer we need make to this statement is, that the difference in point of space between the old and the new is that in the former the value of each quantity, as gr. ʒ, ʒ, or ℥, must be written with the amount, whereas, in the latter, there is but one unit, and only the quantities are given. This would make it appear that the "old method" takes *more* space than the new.

In the specimen of prescription given, a very poorly written metric prescription is chosen. I repeat it here in order to show how such a prescription should have been written, and then leave it to the impartial reader to judge whether it is so complicated or difficult to understand. The prescription Dr. Orr gives is as follows:

"℞.—Morph. Muriat., ...0060.
Tinct. Cannab. Ind., ...0800.
Chloroformi, ...1350.
Ol. Menth. Pip., ...0025.
Tinct. Capsici, ...0025.
Acid. Hydrocyanici Dil., . . .0170.
Alcohol, ...3000.
Glycerinæ, ...4570.—M."

No dose is stated, but from the amounts I should suppose this to be intended for one dose. I cannot imagine

who could have written such a prescription, and I do not wonder at any physician finding fault with it. It certainly violates every rule of correct prescribing, and must, I think, have been (in the journal from which copied) a clumsy attempt to translate grains and parts of grains into metric terms.

The observance of a few simple rules are a wonderful help to correct and easy prescribing:

1. The ingredients should be placed in the order of their strength and importance. If the mixture contains both solids and liquids, place the solids first in this order, and then the liquids, in like order.

2. Write down first all the ingredients intended to be ordered.

3. Determine the number of doses to be given in the prescription, and make the quantities to correspond.

4. If a liquid is ordered, let the vehicle be named last, and by placing after it the term "*ad*," or "*ad q. s.*," let it show how much the entire prescription calls for. In this way there is no necessity of adding up the amounts to see how much they make.

Now for this objectionable ℞—under these rules. We write down the ingredients in proper order, and determine to make twelve doses, of a dessertspoonful each.

This ℞ is supposed to be an anodyne, for internal administration. The doses in the above copy of some of the ingredients are decidedly homœopathic. We shall give the usual doses, as follows:

℞.—Morphiæ Sulph. (dose, 0.01), . .	0	12
Ol. Menth. Pip. (dose, 0.05), . .	0	60
Ac. Hydrocyan. Dil. (dose, 0.10), .	1	20
Chloroformi (dose, 0.30), . . .	3	60
Tr. Cannab. Ind. (dose, 2.00), . .	24	
Tr. Capsici (dose, 2.00), . . .	24	
Glycerinæ (dose, 2.00), . . .	24	
Alcohol, ... ad,	100	00

M. S. Dessertspoonful every 4 hours in water, until relieved.

It is not very often, I believe, that a physician writes as complex a prescription as this one, but when he does, he needs the metric system. A comparison between this and the example given in the paper criticised, will show the difference between a properly and an improperly written metric prescription.

[Obverse.]

METRIC PRESCRIPTION.	Grams.	Decimal.
℞		

[Reverse.]

METRIC SYSTEM IN MEDICINE.

Old Style.	Grams.	Decimal.
1 grain or 1 minim equals.....	0	06
15 grains or 15 minims equal.....	1	00
1 dram or 1 fluidram equals	4	00
1 ounce or 1 fluidounce equals.....	32	00

The Cubic Centimeter (C. C.) may be considered identical with the gram for water or aqueous solutions.

Liquids lighter or heavier than water should either be weighed or a proper allowance be made.

Being a pioneer in the metric line in my own city some four years ago, I anticipated trouble from the pharmacists in connection with my prescriptions. But few of them were familiar with the system, and at first there was some grumbling; but when they learned how simple it is, and obtained the weights and measures, there was no more trouble. Now I do not believe there is a pharmacist in the District of Columbia but prides himself on being able to compound "metric prescriptions." I enclose the form of prescription blank which I have always used. The reverse contains brief but ample directions for converting the metric terms into apothecaries' weights, for the benefit of such druggists who may not have metric weights.

This letter is in a measure an advocacy of the metric system, but space does not allow of any extended argument to prove its superiority. I will, therefore, close by stating briefly some of the reasons for its adoption generally:

1. Its simplicity—

One unit of length	= the *meter*.
One unit of capacity	= the *liter*.
One unit of weight	= the *gram*.
One unit of cubic measure	= the *ster*.
One unit of sq. measure	= the *are*.

The divisions and multiples of these units are by tens. At present there are over seventy arbitrary units in use in the United States.

2. Its substitution for our present system of weights and measures would save an immense amount of time and labor in all forms of business. *It would save one year of school life for every child.* In Appleton's *Cyclopædia*, under article weights and measures of the United States, over seventy units are given as in use, and they are utterly independent of any systematic relation to each other. Think of having to multiply by 1728 to find how many cubic inches are in 1883 cubic feet! Yet this is but one item of but one of the miserable tables that all our school children are obliged to memorize. And not that only, but these heterogeneous tables must be applied to all the examples in arithmetic to be worked out during all the years the unfortunate juvenile is at school.

3. The metric system is the cosmopolitan system. It is legalized by twenty-three nations of the civilized world, and is in exclusive use in thirteen nations. It is legalized in the United States by special Act of Congress passed in 1866. The English foot is only in use in Great Britain, Russia, and the United States.

4. It is used by scientists in all countries.

5. It is used exclusively by the U. S. Coast Survey, the U. S. Marine Hospital Service, and the U. S. Navy. Also by a large number of physicians, especially in the north and northwestern sections of our country.

Other arguments might easily be adduced, but as this is not intended to be an exhaustive article, I rest here.

Objections to introduction of the metric system in the United States.

1. It revolutionizes existing weights and measures.

2. It is difficult, I might say well-nigh impossible for established physicians to forget the old system.

As to the first of these, each person must weigh the arguments *pro* and *con* and decide for himself. In my opinion, the "game is worth the candle."

As to the second objection, older physicians should not be expected to make the change, unless, indeed, they be teachers. But all students should be taught, and should learn the new system exclusively.

In this way a revolution may be accomplished without doing violence to any one's principles.

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NEWS ITEMS.

BERLIN.

(From our Special Correspondent.)

THE CHOLERA COMMISSION.—Fortunately the good wishes which accompanied the Cholera Commission have been, to a great extent, fulfilled earlier than could have been anticipated.

Dr. Koch's first report, sent to the Secretary of State for the Home Department, gives an account of the excellent results obtained in a few weeks. The negative statement, that infectious germs were absent in the blood and in the large glandular organs of ten individuals who died from genuine cholera, would be alone of the greatest importance. A still greater step is the discovery of a certain species of rod-shaped organisms, unexceptionally present in the intestinal walls of the same individuals; and the fact that this species—which does not exist in other infectious diseases—is apparently quite the same as that which was found by Koch in cholera intestines sent to him from India last year, makes it but little doubtful that the bacilli in question are specific to cholera. Only the last link of the chain is still wanting, since it has not yet been possible to reproduce the disease by inoculation. The intended expedition to India, where the cholera is still prevalent, will show if Koch was right in assuming that the failure of his inoculation experiments was only due to a certain immunity generally gained by man and animals at the end of an epidemic.

The short additional remarks concerning researches made on bilious typhoid, dysentery, and Egyptian eye disease, open a fair perspective for the successful activity of our Commission.

THE WILMS MEMORIAL.—A colossal bust of the late Dr. Robert Wilms was erected October 30th, on the place opposite to the large hospital, at the Protestant Sisterhood, called Bethanieu, where the deceased had worked as a chief-surgeon since his twenty-eighth year.

MUSEUM OF HYGIENE.—The hygienic exhibition has come to a close at the proposed term. The committee has resolved to retain the most instructive objects, with the permission of the exhibitors; this collection is intended to constitute the basis of a museum of hygiene similar to the Parkes's Museum in London.

YELLOW FEVER AT HAVANA.—Sanitary Inspector Burgess in his abstract of Bills of Health issued to vessels bound to the United States from Havana, reports as follows: November 6, inspected and disinfected Spanish brig "Nuevitas" bound to Charleston, S. C., she has been 100 days in port at Havana, 20 of them at an infected wharf; Spanish bark "Habana" for New Orleans, 37 days in port, 29 of them at an infected wharf, has had one yellow fever case on shore and another on board just shipped—vessel disinfected before leaving; Spanish brig "Eugenia" for New Orleans, 50 days in port, 30 at an infected wharf, shipped a new crew, vessel was disinfected; Nov. 7—Spanish bark "D. Petronila" for New Orleans, 40 days in port, 20 at an infected wharf, suspicious fever occurred on board while in port, vessel disinfected; Nov. 8—Am. stmr. "Saratoga" for New York, and Am. stmr. "Morgan" for New Orleans, both healthy; Am. schr. "L. A. Edwards" for Pensacola, with a suspicious case of fever, supposed to be yellow fever, she was 20 days in port, 13 at an infected wharf where a suspicious case was sent to hospital. Nov. 9—Spanish bark "Trinidad" for Pensacola, 40 days in port, 20 at suspicious wharf, had suspicious sickness on board, was disinfected; Am. bark "Alice" for New York, 29 days in port, 12 at suspicious wharf, had five cases of yellow fever on board while at wharf, was disinfected; British stmr. "Texas" for New Orleans, healthy except several children with measles. Nov. 10—Am. stmr. "City of Merida" for New York, healthy; Am. schr. "W. Blackford" for Key West, 8 days in port, 4 at suspicious wharf.

There were 19 deaths from yellow fever for the week ending November 10th.

THE QUARANTINE FLEET of four barges and a steamboat which has been anchored in the Mississippi River for two or three years past (late the property of the National Board of Health), was advertised and sold at New Orleans last week, by direction of the Secretary of the Treasury.

WHY A DOCTOR'S LICENSE WAS REVOKED.—Dr. "Frank" B. Smith has begun a suit for $50,000 against Dr. John H. Rauch, Secretary of the Illinois Board of Health, whose name, he declares, was signed to a circular revoking his (Dr. Smith's) license for alleged unprofessional conduct. This conduct, the plaintiff says, consisted in his advertising his presence when he was a delegate to a health convention at Peoria.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending November 10, 1883, indicate that measles, bronchitis, diarrhœa, tonsillitis, dysentery, puerperal fever, and diphtheria, have increased in area of prevalence.

Including reports by regular observers and others, diphtheria was reported present during the week ending November 10, and since, at nineteen places; scarlet fever at thirty-two places; and measles at nine places.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOVEMBER 12 TO NOVEMBER 19, 1883.

BACHE, DALLAS, *Major and Surgeon.*—Ordered to report in person to the Commanding General, Department of the East, for assignment to duty.—*Par. 10, S. O. 259, A. G. O.*, November 12, 1883.

APPEL, D. M., *Captain and Assistant Surgeon.*—Granted two months' leave of absence.—*S. O. 68, Division of the Atlantic*, November 16, 1883.

GARDINER, J. DE B. W., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Huachuca, and assigned to duty as Post Surgeon at Fort Bowie, A. T.—*Par. 1, S. O. 104, Department of Arizona*, November 8, 1883.

COCHRAN, J. J., *First Lieutenant and Assistant Surgeon.*—Assigned to duty at Fort Bayard, N. M.—*Par. 5, S. O. 236, Department of the Missouri*, November 15, 1883.

EGAN, PETER R., *First Lieutenant and Assistant Surgeon.*—Upon being relieved from duty at Fort Bowie, A. T., to proceed without delay to Fort Huachuca and report to the Commanding Officer at that post for duty.—*Par. 1, S. O. 104, Department of Arizona*, November 8, 1883.

WILSON, GEORGE F., *First Lieutenant and Assistant Surgeon.*—To report in person to Lieutenant Schwatka, Third Cavalry, Aid-de-camp, for temporary duty in connection with the completion of report of recent expedition to Alaska.—*Par. 3, S. O. 156, Department of the Columbia*, November 9, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*